

# Railway Age

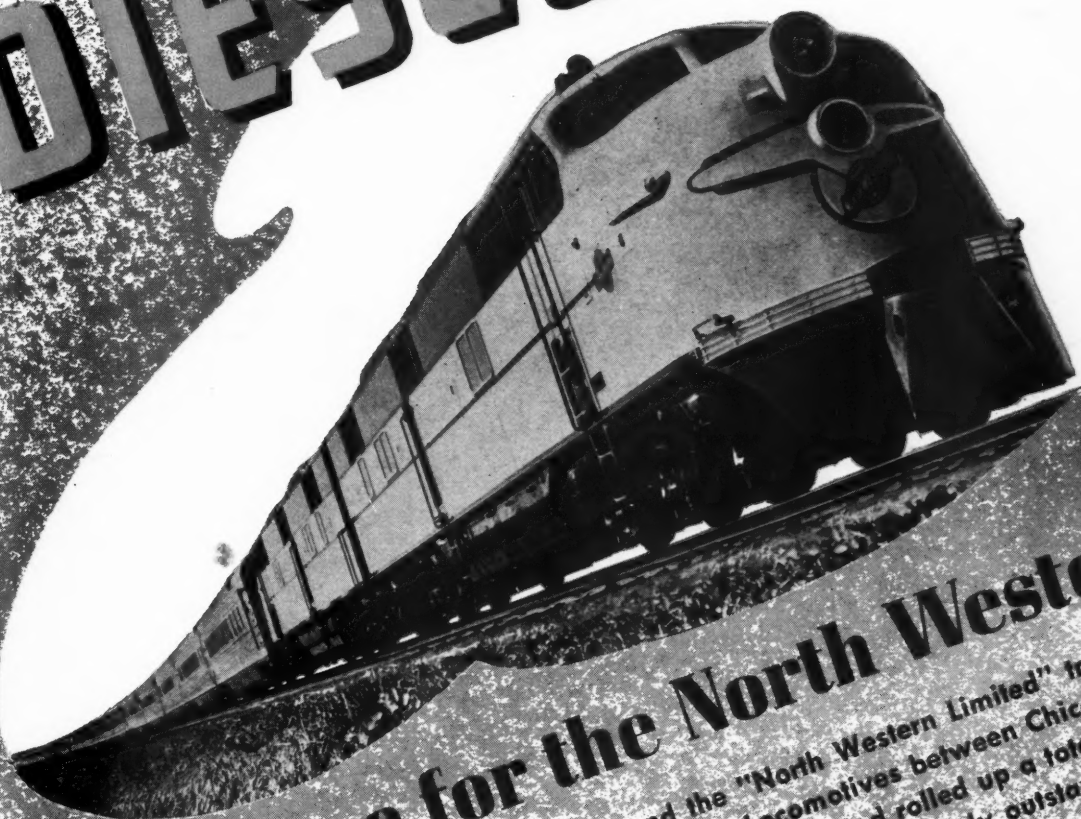
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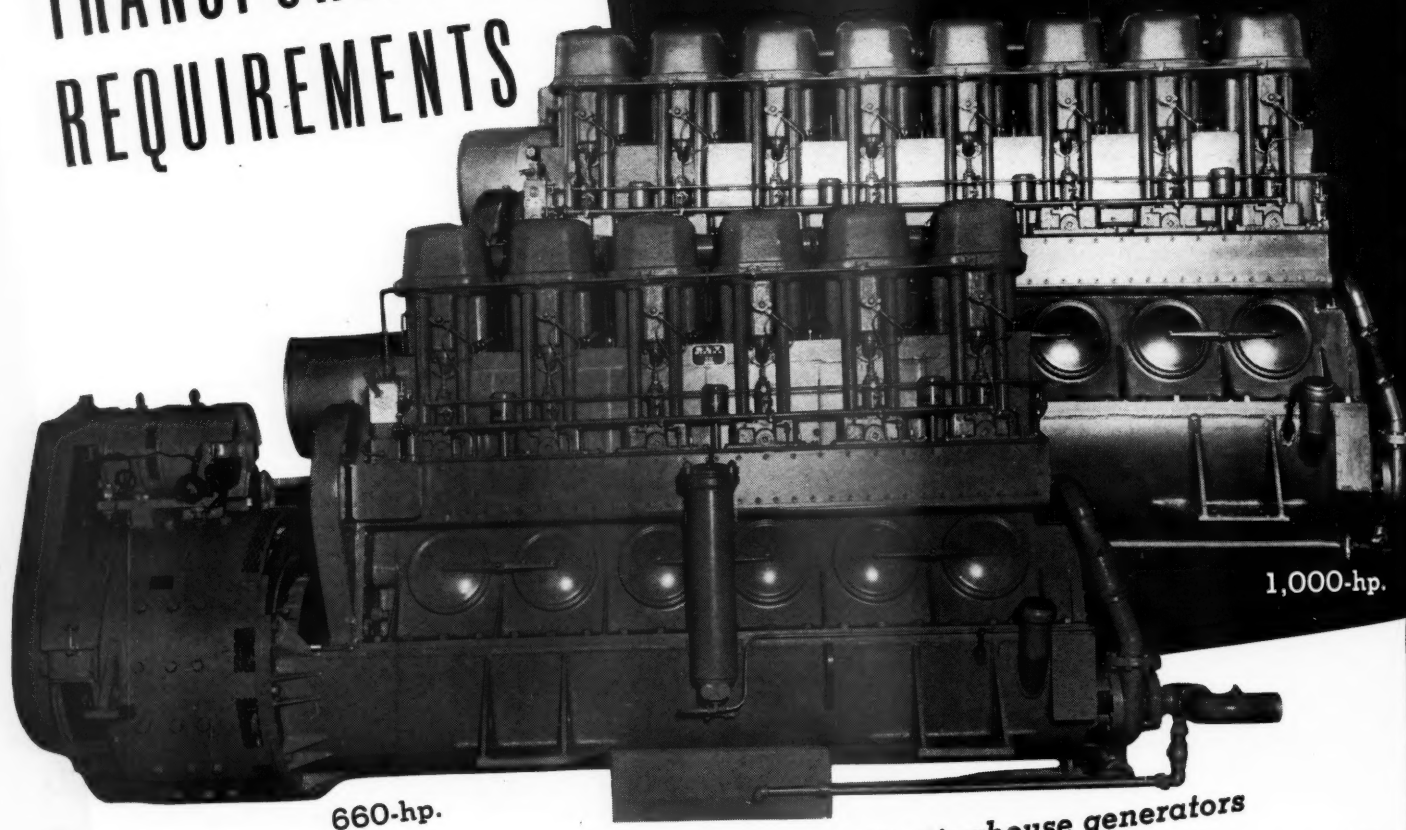
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*Philadelphia*



# Railway Age

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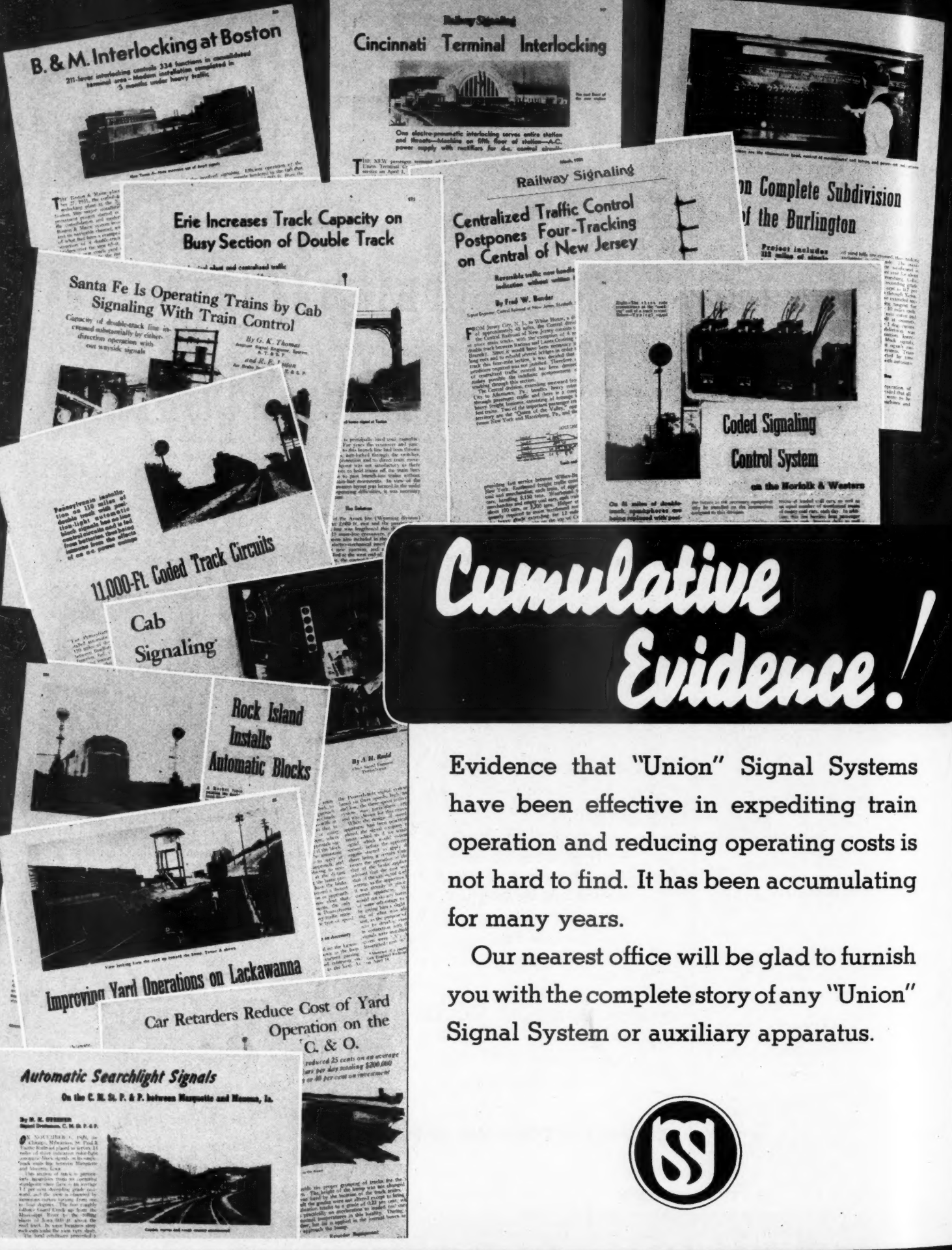
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# How Actively Are Unions Defending Their Members' Jobs?

On the "Communications" page in this issue we publish a letter from J. G. Luhrsen, executive secretary-treasurer of the Railway Labor Executives Association, in which he takes exception to comments by this paper reflecting upon the zeal with which such projects as the St. Lawrence Seaway have been opposed by the railway labor union leaders. He calls attention to his own efforts in endeavoring to enlighten the public and the politicians as to the uneconomic character of these socialistic transportation ventures.

### Transportation Anti-Socialists Need Votes

The work that he and other representatives of organized labor are doing in this connection we fully recognize; but Mr. Luhrsen avoids the point on which our criticism was based—namely, that union opposition to the St. Lawrence and other such projects is largely by **voice** and not by **vote**. Railroad officers have been making economically sound and persuasive speeches against the St. Lawrence and other such projects for many years, but with inadequate effect, because railroad officers do not have sufficient votes at their command to influence politicians. The case is different with the railway labor unions. They do have the votes; but, so far as we have been able to see, they use them only in support of so-called "labor legislation"—that is, usually, restrictive "make-work" measures against their employers. A politician is endorsed or condemned by them because of his "labor record"—that is, because of the way he votes on so-called "labor legislation," and not because of the way he votes on waterway or superhighway projects. And so the advocates of socialistic transportation projects often manage to get votes of railroad employees.

The average politician is impressed less by logic and eloquence than by votes. Therefore, valuable and welcome as are the resolutions and addresses of unions and their spokesmen against the St. Lawrence and other such projects, we are sure that their votes against politicians who favor such projects would be much more effective.

Something analogous to this occurred with prohibition. For many years most "wets" were such only incidentally. They went to the polls and voted to "keep

cool with Coolidge" or on some issue which, to them, was more important than the prohibition question. In contrast, the "drys" were dusty first, last and all the time. The dryness of the "drys" counted on election day; the wetness of the "wets" long did not; and consequently prohibition was continued long after it had ceased to be actually favored by a majority of the people. A veteran and respected senator, in the middle of the prohibition era, when asked why he voted dry, replied: "By voting 'dry' consistently I have not lost the votes of any who are against prohibition; but if I should vote 'wet,' I should lose the votes of all the 'drys.' This I cannot do and continue in office." It was only when the "wets" started voting that way, instead of just talking their convictions, that the prohibition era began to wane. And superhighways and St. Lawrence projects, similarly, will begin to lose ground when those who oppose them give evidence of their intention to carry their opposition to the polls on election day.

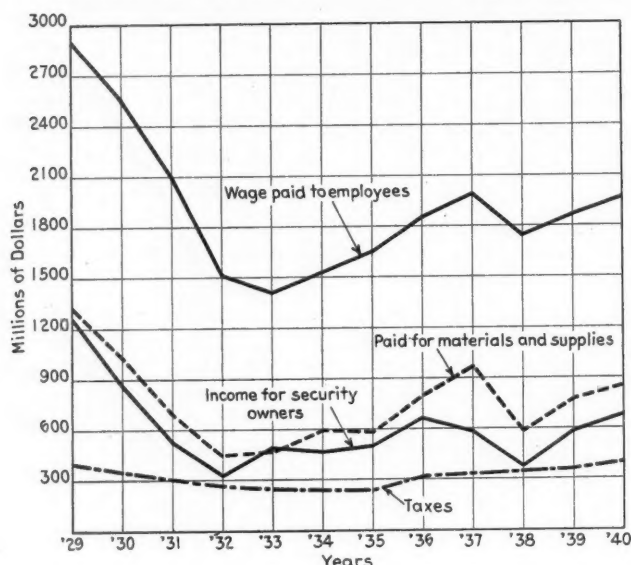
### Employees' Stake Is Largest of All

There appears to be a disposition on the part of some union representatives to feel that, by taking a stand against socialized competition with the railways, they are being most generous and altruistic toward railroad owners and managements. As a matter of fact, as the figures clearly show, it is railroad employees rather than owners, creditors and managers who have the largest stake in the success or failure of the railroad industry in meeting its competitive problem. For example, while in 1940 railway net operating income was 569 million dollars less than in 1929, the decline in the payroll, in spite of advances in wages, was 933 millions. In 1940 railroad employees received 1,964 million dollars in wages—while earnings available for security owners were only 682 millions. If 10 or 20 or 30 per cent of railroad traffic should be lost, in the course of the next decade or so, to such socialistic competitors as the St. Lawrence seaway and other canalized rivers and the proposed system of "superhighways," it is as clear as anything could possibly be that the loss in income to railroad employees would again greatly exceed that of railroad security owners. When union representatives oppose these socialistic ventures, therefore,

they deserve credit for their foresightedness in protecting the interests of their own members—not for the incidental advantage which may thereby accrue to railway owners—a class for whom the unions have never evidenced any especial consideration.

Nor do we blame them for that omission. It is being

**Chart I—Of the Various Beneficiaries from Railroad Earnings, Which Class Has the Most to Lose When Traffic Is Diverted by Socialistic Competition?**



widely preached that humanity in the modern world needs to be more altruistic. We disagree. It isn't merely selfishness that is wrecking the world. It is the **intelligent** selfishness of leaders in most countries who are seeking merely to increase their own power and further their own ambitions, and the **ignorant** selfishness of many or most of the people which causes them to follow those who appeal most skillfully and powerfully to their **ignorant** selfishness. And it is less the intelligent selfishness of the leaders than the ignorant selfishness which causes so many of the people to follow such leaders that is doing the damage. Ignorant selfishness has caused the Germans to support Hitler because of his promise to win for them the domination of the world; caused the socialists and communists to split and prepare the ruin of France by their efforts to seize other people's property and destroy "capitalism;" and is causing members of labor unions in this country to proceed on the assumption that wages for manual labor can be pushed higher and higher regardless of the effect on the "wage" of capital and on the flow of private capital into industry. It is the age-old story of ignorant selfishness killing the goose that lays the golden eggs because it is told that that is the way to get the eggs more quickly.

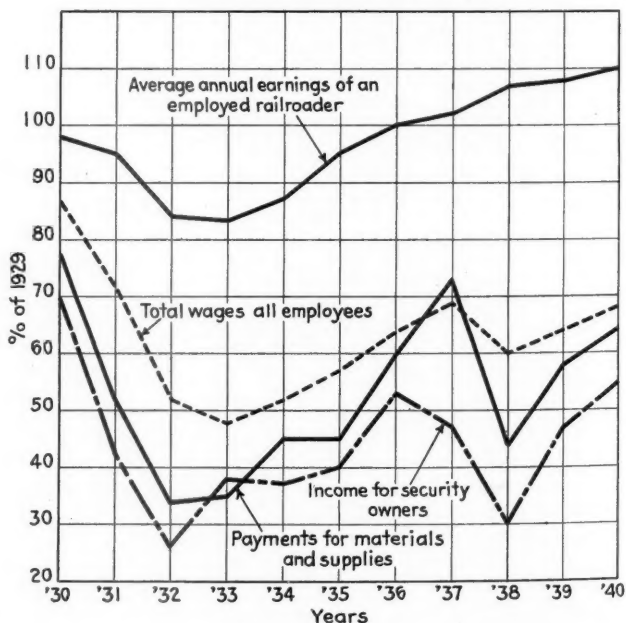
The two accompanying charts portray graphically the great stake which railroad employees have in the success of the railroads in securing adequate traffic.

From 1929 to 1933, as Chart I shows, total annual earnings of railway employees fell from almost 2,900 million dollars to 1,404 millions. The reasons for this decline were twofold: (a) depressed conditions in business as a whole and (b) continued loss of traffic to railway competitors. In 1940 earnings of employees had climbed back to 1,900 millions, because general business conditions were better, but the percentage loss of traffic to competitors was greater even than it was in 1933. Except for this loss of traffic to competitors, it is easily conceivable that employee earnings in 1940 might have been 300 or 400 million dollars greater than they actually were.

#### Competition More Vital Than "Make-Work"

Is there any "make-work" or other restrictive legislation against the railroads by which union members believe that they can extract 300 or 400 million dollars more from them than they now receive? If not, then why is it that the politician who votes for restrictive legislation that may enable some of the employees to squeeze a few more millions out of the railways—perhaps actually at the cost of other employees—is looked upon as a "friend of labor," while the unions largely disregard the hundreds of millions in wages which the same politician is voting **away** from railway

**Chart II—Of All the Recipients of Railway Revenues, Only the Fully-Employed Railroader Was Better Off in 1940 Than in 1929.**



labor by his favoritism for waterways and super-highways?

As Chart II shows, the **employed** railroad man is the only recipient of railroad revenues who was better off in 1940 than in 1929. His wages were 10 per cent higher (and in purchasing power even higher than



that) in 1940 than in the days of prosperity. By contrast, employees as a whole were 32 per cent worse off in 1940 than in 1929. Those who sell materials and supplies to the railways were 36 per cent worse off. And the people who have put up the money to provide the plant and machinery which make railroad employment possible were 45 per cent worse off. It is as evident as anything could possibly be that the employed railroader is sitting at the very apex of the whole railroad structure. And, as a consequence, it is not merely because of a vague altruism toward railway security owners and managements that railway union leadership should vigorously demand an end to the extension of socialism to transportation, but because of an intelligent concern for the well-being of union members.

While the immediate outlook for the railroads (and hence for railway labor) is favorable, the long-run prospect has never been more threatening. The reason lies in the rapid disintegration of the principle that transportation is an economic service that should be paid for by its users, and the substitution of the principle that transportation is primarily a political enterprise—to be paid for largely by taxes and only to a limited extent by the direct beneficiaries. New facilities are to be built, not where customers by their patronage attract the investment of private capital, but by the investment of taxpayers' money where it is most politically expedient to do so.

The railroads are continuing to do business under the old principle of users' paying; their competitors are taking advantage of the new hypothesis which regards

## Handling Costs Not the Primary Problem

Your observer is open-minded on the question of pooling merchandise traffic. There have been many theoretical presentations which argue the economy of such a move. There have been more recent ones which contend with great persuasiveness to the contrary.

There are two factors in meeting the competition of trucks for this class of traffic—neither of which, alone, will meet the necessity. One of these factors is the placing of railroad rates on a basis to reflect whatever the economies are of railroad service. The other factor is, thereafter, to make railroad service as economical as possible—because, once rates are based on an economic foundation, the greater the economies, the greater the volume of traffic which can be secured in competition.

Logically, the establishment of a rate basis which will reflect the economy of railroad service is a step which should be taken either prior to, or simultaneously with, more economical methods of handling. That is to say: You effect economies without changing your rates, and all you get is a comparatively small sum of net earnings from the dwindling traffic now moving by rail. And this small improvement in net will not stay with you long, if your traffic is continuing to slip away. But change the rate basis—scientifically—so that it will bring more tonnage; and that is something else again. One thing the railroads certainly know how to do is to carry over a good share of a large and growing gross into net.

Furthermore, if the rates are based on the true economies of railroad service, the securing of greater economies ought to occur automatically. At least, such a rate basis would offer a *tangible incentive* to everybody on a railroad to co-operate to bring handling costs down. Even organized labor—which is ordinarily little interested in economies which go entirely into net railway operating income, and often even opposes them—should quickly see its advantage in economies which are reflected in the competitive rate basis, and hence serve to increase railroad traffic and employment.

The adoption of such a rate basis, and adequate explanation of its significance to employees and

supervisory forces, might provide a background of education in how the fortunes of railway labor are tied up with those of railway management and investors, which could prove extremely salutary to the future of the carriers. Such education, put in the tangible form of traffic and jobs, is much easier to understand, and more convincing, than theoretical arguments, however sound.

Be that as it may—the rate side of this picture should not be allowed to gather dust while the pooling vs. anti-pooling argument is progressing. The rates are what win or lose the traffic. More economical handling, however achieved, will be induced by the right kind of rates. But the reverse is not true: That is, more economical handling, of itself, will not automatically guarantee rates which will get the business.

One thing on the pooling question: You can't prove that forwarders would do a better job than the railroads if they handled all l. c. l., merely by citing the heavier loadings per car that the forwarders now secure (by serving only heavy-traffic areas). The railroads have got both a moral and legal obligation to serve (so long as there is any hope of profitably so doing) a lot of little places which came into being largely as the result of pioneer railroad efforts in opening up virgin territory. Furthermore, even if they could and should relinquish all their l. c. l. traffic to forwarders, how much money would they save—except clerical and platform-handling costs?

To say, on available evidence, that forwarder efficiency in l. c. l. handling is greater than that of the railroads is like comparing operating statistics of a 4-track, water-level, dense-traffic railroad with a single-track line in the hills and—from the figures—declaring that the former is more skillfully operated than the latter. Nobody knows for sure what forwarder efficiency would be if it took in "the cats and dogs." And nobody can say with assurance that the railroads might not do the present job the forwarders are doing even more efficiently than the forwarders are doing it, if they had the chance to pick their traffic and their destinations.

transportation as, largely, a political enterprise, paid for out of taxes. The two theories are incompatible. One must ultimately drive out the other. For the well-being of railroad employees and all other interests connected with the railroads (as well as that of the nation as a whole), it must be hoped that it is the political-socialist theory which will lose. But if that is to be the outcome, then the friends of self-supporting enterprise in transportation must bestir themselves—and not only by **talking** for it, but especially by **voting** for it and for public men who vote for it.

## The Coal Strike and the Railways

The strike in the bituminous coal mines is having a very adverse effect on total railway traffic, and if later the railways have any difficulty in furnishing enough cars, especially for coal loading, the responsibility should be placed where it belongs—on those causing—or not preventing—the strike.

In the week ended March 29 total freight carloadings were 792,125, of which 168,827 were coal. The gain over the total in the same week of 1940 was almost 26 per cent and loadings exclusive of coal were 623,298. In the week ended April 5 total loadings declined to 683,402, being only 13.4 per cent more than in 1940. Coal loadings declined to 58,841, while loadings of other

commodities increased to 624,561. In the week ended April 12 total loadings declined to 679,808, or only 9.8 per cent more than in 1940. Coal loadings were only 31,592, while loadings of other commodities increased again to 648,216.

As the figures show, loadings of other commodities have continued increasing, while in the week ended April 5, as compared with the week ended March 29, the decline of coal loadings was 110,000 cars; and in the week ended April 12, as compared with the week ended March 29, it was 137,000 cars.

The production and transportation of coal which are now being lost owing to the strike will undoubtedly have to be subsequently made up and will impose upon the railways an abnormal burden during a period when their other traffic will not only have increased seasonally, but much more than seasonally because of the rapidly increasing government expenditures for defense.

Apparently the railways will be able to handle the later artificially and abnormally expanded traffic if the strike does not last much longer. But it should be borne in mind that their plans for providing adequate transportation can not provide for abnormal decreases and increases of traffic without including large surpluses of facilities most of the time. It does not make economic sense to expect them to be able to handle, any time it may be dumped on them, large amounts of delayed freight that would have been produced long before excepting for varying displays of imbecility in other industries and by representatives of government.

### How Railroad Property Is Being Confiscated

Increased competition and the terrific impact of the depression reduced railway gross earnings to less than two-thirds as much during the decade ending with 1940 as they were during the decade ending with 1930. Railway managements made the most drastic retrenchments in history. But the 1932 wage reduction was rescinded and wage advances were made in 1937 to the highest levels in history and have since been kept in effect, while taxes have resumed their increase. Consequently during the last decade as a whole, and also during the last five years, the ratio of expenses plus taxes to the greatly reduced gross earnings has averaged 83 per cent, with the result of reducing the return on investment in road and equipment during the last decade to an average of only 2 per cent and restricting it during the five years 1936-1940, inclusive, after we were supposed to have had "recovery," to only 2.3 per cent. During the decade ended with 1930 the industry never in any year earned a fair return, according to the standard adopted by the Interstate Commerce Commission in the 1922 rate case; and yet during that decade ending with 1930 it had net income averaging \$7.27 per annum on its stock, while in the decade ending with 1940 it had net income averaging only 72 cents per annum on its stock.

This is the story to date of railroad confiscation and how it has been and is still being accomplished. The railroads are owned by their stockholders; the stock representing this ownership is property; and to whatever extent that stock is wiped out, as proposed in the plans of the Commission for the reorganization of bankrupt roads, the owners lose their property. The process constitutes con-

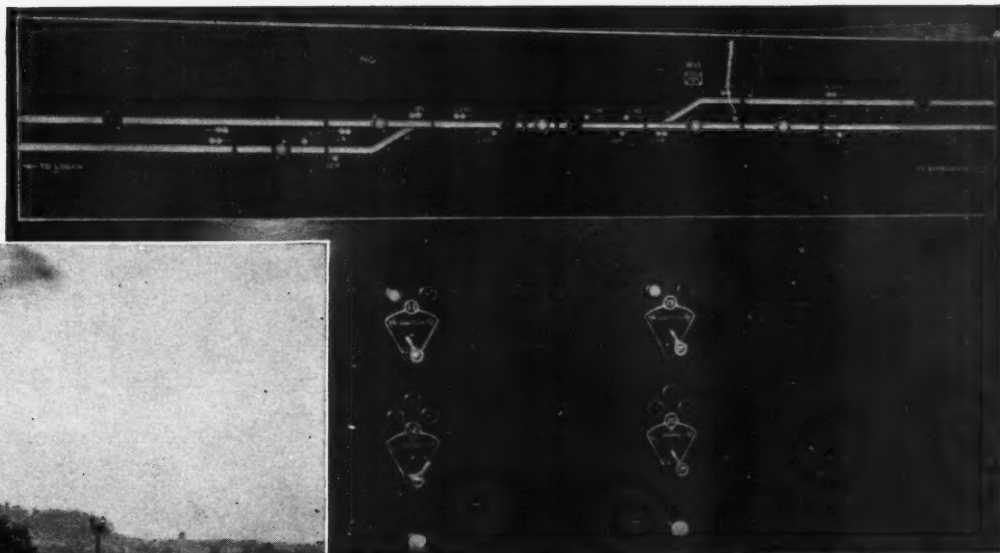
fiscation because it has consisted almost entirely of policies followed by government.

The policy adopted in the Chicago Great Western case, of requiring the bankrupt companies to mark down their property investment accounts to an equality with their new capitalizations, tends to reduce the reported total investment of each group. It necessarily follows that it is a policy tending to reduce the amount of net operating income which each *group* may earn, and thereby to reduce the amount of net operating income that *every* railway in the country may earn. Thus the general government policy that has prevailed for a third of a century, plus the Commission's present reorganization policy, tend to cause the bankruptcy of additional railways in every depression or "recession," and the writing down of their capitalizations and investment accounts, with the ultimate result that these policies, if not arrested, will consummate the confiscation of all railway property.

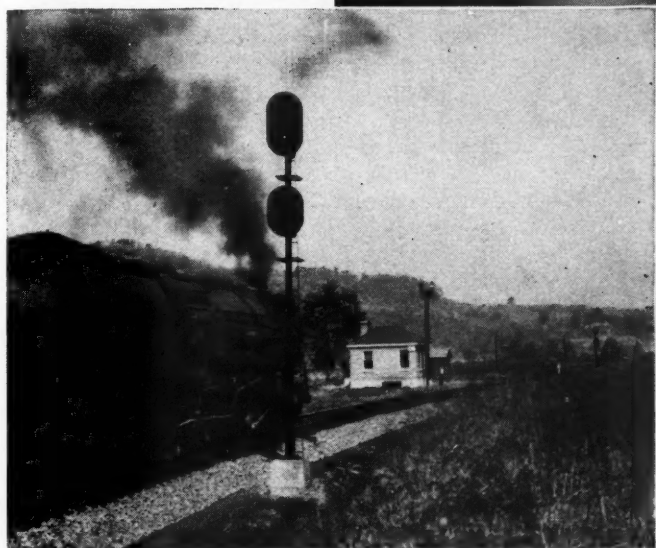
United and vigorous action by the managements of all the country's railroads is essential if the general process of confiscating the industry is to be arrested. There is essential more united and vigorous action in resisting pressure from the labor unions, not only for unwarranted advances of wages, but, still worse, for wasteful working conditions; more united and vigorous action for rectification of the unjust competitive conditions from which the railways are suffering; more united and vigorous action in making readjustments of rates where needed to better meet competitive conditions; more united and vigorous action in informing the public regarding this process of railroad confiscation, its causes and dangers, and in arousing a sentiment that will aid in resisting it.

*From a Paper by Samuel O. Dunn, Presented Before the Western Conference of Railway Counsel*





Above — Centralized Traffic Control Machine At WH Cabin. Left—Freight Train Passing WH Cabin



## Automatic Block and Centralized Traffic Control on the C. & O.

Installation on 63.5-mile territory, including C. T. C. on 11 miles, expedites train movements

**F**ROM Barboursville, W. Va., on the main line of the Chesapeake & Ohio, a branch known as the Logan subdivision extends eastward 62.4 miles to West Peach Creek which is the west end of a large yard. From Barboursville to WH Cabin, 19 miles, the line is double track; from WH to NG, 11 miles, single track; from NG to the west end of Peach Creek yard, 32.4 miles, double track, and from West Peach Creek to Peach Creek, 1.1 miles, single track. Practically all of the territory from Barboursville eastward is mountainous, but the line was constructed up the valley of the Guyandot river at river grade, not exceeding .85 per cent ascending eastward.

Curves ranging up to 8 deg. are numerous, but these do not require speed reductions below the present maximum authorized speeds of 35 m. p. h. for freight trains and 45 m. p. h. for passenger trains.

From Peach Creek, lines extend up valleys in five different directions, each line having numerous branches connecting to coal mines. Loaded coal cars from these branches are assembled in trains in Peach Creek yard. These trains, each consisting of about 140 cars, are operated over the Logan subdivision from Peach Creek yard to Barboursville, where they enter the three-track main line and continue westward 29.4 miles to a large classification yard at Russell, Ky. In this yard, trains of

empty coal cars are made up and are operated on the return trip to Peach Creek yard. During peak seasons, up to 28,000 cars of coal are handled westward out of Peach Creek yard each month.

The operations of the mines vary from day to day, and over each week-end, but an average of about six to eight loaded trains are operated westbound daily, and the same number of trains of empty cars are operated eastbound. Two local passenger trains are operated each way daily, and a local freight train is operated eastbound one day and westbound the next day, daily except Sunday. The four passenger trains are scheduled, but all freight trains are operated as extras, and depart from the terminals whenever they are ready, at intervals during the 24 hours. The ideal operation is a uniform flow of traffic so that there will be no congestion in the Peach Creek yard, and so that the classification yard at Russell can be operated at a uniform rate throughout the 24-hour period.

### Methods of Train Operation

Prior to the recent signaling improvements, trains were operated by train orders and manual block system rules, and freight trains were allowed to follow freight trains in a block on a permissive signal. This operation

was not entirely satisfactory, especially during foggy and stormy weather when the sighting distances of some of the manual block signals were short, which necessitated reducing the speed of trains when approaching the signals. Likewise, when freight trains were following one another in a block on a permissive signal, their speed was necessarily reduced because the sighting distances were short on account of the curves.

When operating long trains, especially trains of loaded coal cars, it is often necessary to stop the train after the train's brakes are applied and the speed reduced, before releasing the brakes, otherwise the release of the brakes on the forward portion of the train will cause it to surge forward, and might break the train in two. For these reasons, trains were operating at reduced speed and were sometimes stopped for a portion of the time enroute, so much that the track capacity was reduced by these factors.

One logical means of increasing the capacity of the existing tracks was to provide automatic block signaling, by means of which trains could be spaced closer and kept moving at the speeds consistent with safety at all times when the tracks immediately ahead were unoccupied, and to give information concerning these conditions by wayside signals located well in advance of points where action need be taken by the engine-man.

With this signaling, the speed of trains can, in most instances, be controlled gradually by using the locomotive brakes. With such braking, if conditions ahead change so that a train receives a "better" signal aspect, the locomotive brakes can be released and the train can be accelerated without the necessity of stopping and without any likelihood of breaking the train in two. Thus the provision of wayside automatic block signals, including advance information, permits the use of the ideal method of handling these heavy trains, to eliminate unnecessary stops and also permit smooth handling, as well as permit higher average train speeds with safety. An additional advantage of the signaling is the protection provided to detect broken rails, misplaced main-line switches and cars on turnouts fouling the main line.

#### Arrangement of Signaling

The automatic block signals are spaced about two miles apart. These signals display the standard three aspects; namely, red, yellow and green. When running on the clear aspect (green), following trains can, if necessary, close up to a spacing of about 4 miles, which at 35 m. p. h. represents about 7 min. This spacing not only provides

adequate track capacity, but also flexibility to permit efficient handling of the trains with safety.

Trains are operated right-hand running on the double track between Barboursville and WH. The switches and signals involved in the junction between the double-track Logan subdivision and the three-track main line at Barboursville are included in an electric interlocking which has been in service for a number of years. The switch and signals at the end-of-double track at WH, and the switch and signals at the end-of-double track at NG are power-operated and are controlled in a C. T. C. system, with the control machine located at WH Cabin.

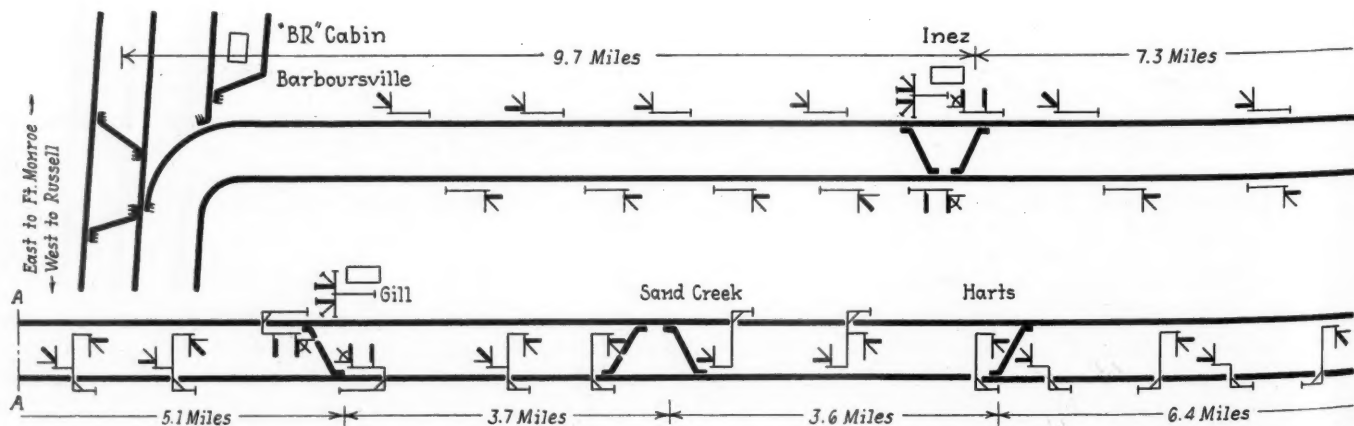
The Peach Creek yard, from which the trains of loaded cars are dispatched, is located on the south side of the main line. In order to eliminate the necessity of operating these westbound trains across an eastward track, thus introducing delays, left-hand running is in effect between NG and West Peach Creek. Passenger trains in both directions use the single track between West Peach Creek and Peach Creek. Likewise, east-bound trains of empty coal cars use this section of single track to a yard located east of Peach Creek. The westward passenger trains from this single track are crossed over through crossover No. 5 at West Peach Creek to operate left-hand running to NG.

The second crossover, No. 1 at this same layout, was provided for use in case trains are operated against the normal direction of traffic on the double track and when necessary to route eastward trains into the west yard. Such moves are made only in cases of emergency, and, therefore, this crossover is equipped for operation by hand, both ends being operated by a centrally located machine with one mechanical lever. The switches are locked in both normal and reverse positions with facing point locks. Operation of the one lever unlocks the switches, operates them to the opposite position and again locks them. An electrically-controlled lock prevents operation of the mechanical lever from the normal position until released as will be explained later.

The power switch machines for crossover No. 5, the electric lock on the mechanical lever for crossover No. 1, and also the signals controlling train movements over this West Peach Creek layout are controlled remotely by a miniature lever type machine in the dispatcher's office at Peach Creek, 1.1 mile east.

#### Method of Directing Train Movements

The main line and the Logan subdivision dispatchers are located in the same office at Huntington, W. Va., 9.5 miles west of Barboursville on the main line, and receive



Track And Signal Plan Of The Territory



their information concerning approaching trains from each other. The operator at Barboursville works under the direction of the main-line dispatcher and also blocks trains with the operator at WH, who works under the direction of the Logan subdivision dispatcher. The dispatcher of the branch lines east of Peach Creek is located at Peach Creek and handles the control machine for the facilities at West Peach Creek.

The eastward semi-automatic home signal, No. 20L, at WH, and the westward semi-automatic home signal, No. 12R, at NG, serve not only to govern trains over routes involving the ends of double track switches, but also to authorize train movements in either direction through the single track section between WH and NF. Likewise, in the single-track section from Peach Creek to West Peach Creek, the semi-automatic home signals controlled by the Peach Creek dispatcher serve the purposes explained above. Similarly, semi-automatic home signals in the Barboursville interlocking and the WH, NG and West Peach Creek layouts direct trains on routes over the switches involved and for movement in the normal direction of traffic in accordance with rules for double-track operation in automatic block signal territory, subject to any train orders that may be necessary for such operation.

All these are absolute signals normally displaying the Stop aspect, red-over-red without a number plate, Rule 292.

The turnout at WH, for example, has a No. 16 frog; therefore, eastward train movements from the eastward main to the single track are limited to medium speed, and for this reason the best aspect which is displayed by the eastward home signal is Clear-Medium, red-over-green. In order to authorize an eastward train to be accelerated to maximum authorized speed as soon as it is clear of the turnout, provided the next two automatic blocks are unoccupied, advance automatic block signal No. L190 was provided, as shown on the diagram.

#### Use of Four Aspects Eliminates Train Stops

For each semi-automatic home signal on which the best possible aspect is Clear-Medium, red-over-green, the signal in approach thereto is of the two-unit type. When the home signal is displaying the Clear-Medium aspect, the "distant" signal displays the Approach-Medium aspect, yellow-over-green, which indicates that the train is to approach the home signal at not exceeding medium speed. When the home signal is displaying the Stop aspect, the distant signal displays the Approach aspect, yellow-over-red, indicating that a train is to re-

duce to medium speed at once and prepare to stop at the next signal. The use of four aspects, rather than three, on the home and distance signals, permits trains to be brought up to and through the switches at the speeds for which the turnouts are designed, whereas with a three-aspect signal using the Approach aspect when the Clear-Medium is displayed on the home signal, the train speed would have to be reduced to medium speed through the approach block.

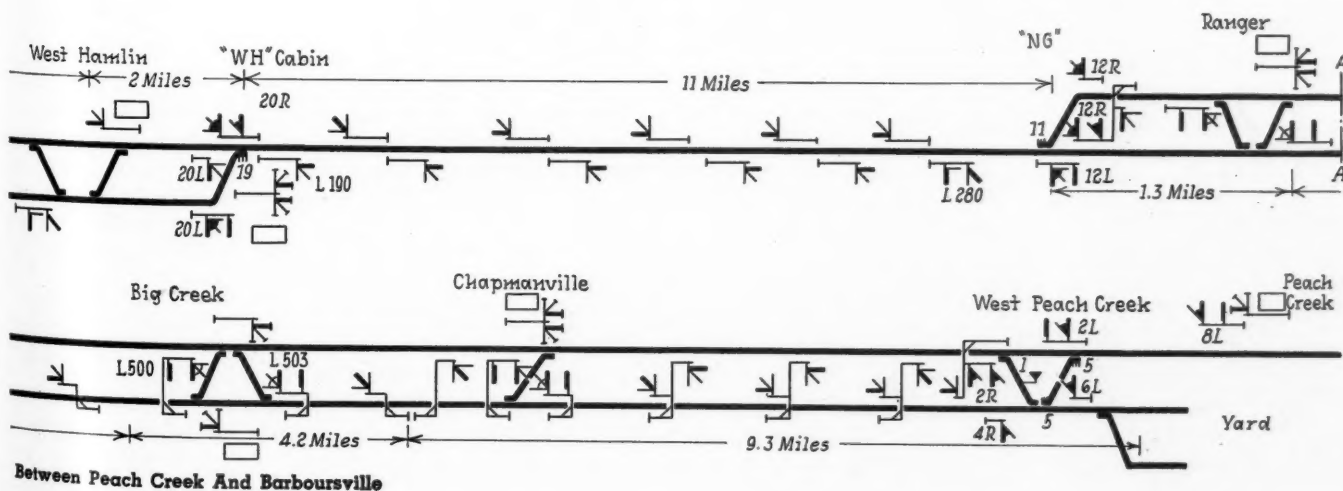
As explained previously, after the train brakes are once applied on these long trains, a stop is usually made to release the brakes. The use of the four-aspect signals, therefore, does eliminate train stops and consequent delays.

#### Special Holding Signals

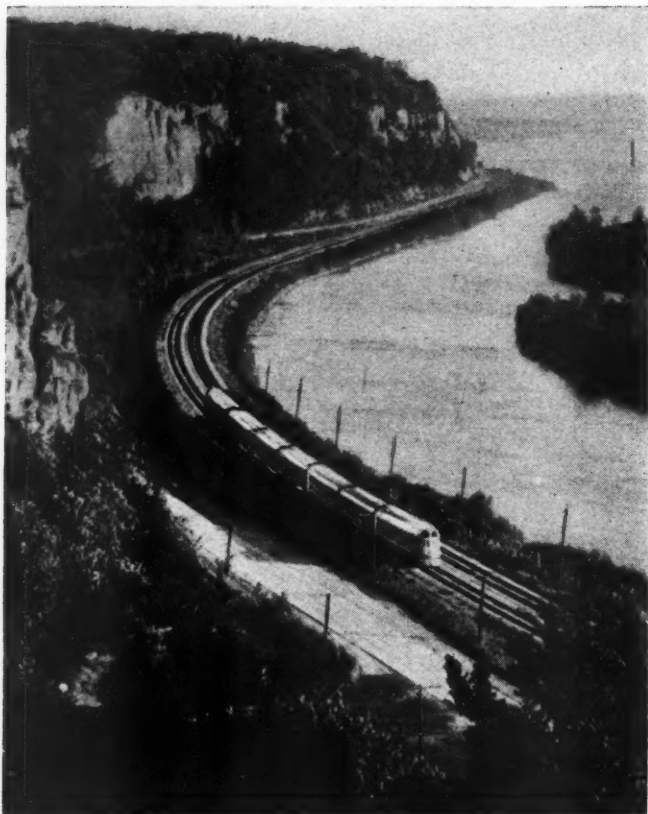
The local freight train and the four local passenger trains are operated during the daylight hours. The first passenger train entering the territory leaves Barboursville at 7:33 a. m., and the last passenger train, eastbound, leaves the territory at Peach Creek at 5:56 p. m. During the remainder of each 24-hour period, that is, from 5:56 p. m. to 7:33 a. m., the line between Barboursville and Peach Creek is available for the operation of the long freight trains without any interference from other trains.

Although short spurs and sidings are provided at several locations on the Logan subdivision, no passing tracks long enough to hold a train of 140 cars are available. Therefore, when one of the trains of either loaded or empty coal cars leaves a terminal yard, it must stay on the main line until it reaches its distant terminal. This means that the local freight train has to clear for the long freight trains, and that the four passenger trains must, when occasions arise, be operated around the long freight trains by running against the normal direction of traffic. For example, if a westbound freight train is out of West Peach Creek just ahead of a westbound passenger train, the passenger train would be operated against the normal direction of traffic to pass the freight train and again resume normal-direction operation at the hand-operated crossover at Big Creek. Special "hold-out" signals, such as L500 and L503 which are manually controlled by the operator at Big Creek, were provided as a means for stopping trains at the crossovers, and similar signals are provided at Inez, Ranger, Gill and Chapmanville. All movements against the current of traffic are authorized by written train orders.

This signaling installation was planned and installed by the signal forces of the Chesapeake & Ohio.



# What High-Speed Service Means to the Track Man\*



Curves Are the Critical Points in High-Speed Lines

A review of the entire problem, with special reference to the measures taken on the Burlington to insure comfort and safety in the operation of the Zephyrs

By H. R. Clarke

Engineer Maintenance of Way,  
Chicago, Burlington & Quincy

**P**REPARING the track structure to carry trains at higher speeds is no new problem to the man responsible for the maintenance of way. It has been with us ever since transportation by rail began. The constant demand for higher speeds and the increase in axle loads and tonnages, have continually introduced new problems or revived old ones for the engineer and the trackman, and these problems have been solved by improved design and a higher standard of maintenance, heavier rail, more ballast, and better line and surface—in other words, a steady and constant development and refinement of the basic track structure, with little change in fundamentals.

The developments of the last ten years, the decade which has brought into service the trains which have made speeds as high as 100 m. p. h. commonplace, have not been basic. They have merely been the result of greater attention to detail, and have brought about a high degree of refinement in line and surface, and in the condition of the ties and rails.

Five years ago we were still in the experimental stage. Some thought that in view of the speeds proposed it would be necessary to make radical changes in track design and in maintenance methods. Opinions were based on theory, not practical experience. This is no longer the case. The millions of train-miles that have

been operated at these so-called super-speeds have given us experience to back up our opinions.

## Advent of the Zephyrs

In May, 1934, the Pioneer Zephyr made a non-stop run from Denver to Chicago, 1,017 miles, in 13 hr. 5 min. at an average speed of 77.6 m. p. h. In October, 1936, one of the Denver Zephyrs made a non-stop run from Chicago to Denver in 12 hr. 8 min. at an average speed of 83.7 m. p. h. Prior to the first run, very little preparatory track work was done, being confined to a careful check and a small amount of picking up and lining. Prior to the 1936 run, regular Zephyr service had been established between Denver and Chicago, the west-bound trip being made in 16 hr. and the eastbound in 15 hr. and 38 min., the average over-all speed being about 67 m. p. h. Some work had been done on the track, which consisted principally of increasing the superelevation on curves where it was not up to the standard established. This made it unnecessary to reduce speed in 1936 at points where reduction had to be made in 1934; the faster run was possible without exceeding the maximum speed made in 1934, and was made more easily.

Today the Burlington operates 20 Zephyr trains daily over about 3,800 track miles. They total about 8,440 train-miles daily and have piled up a total of nearly 11,000,000 train-miles. The schedules are such that an average speed of more than 60 m. p. h. is necessary in

\* A paper presented before a recent meeting of the New England Railroad Club.



nearly all cases and on at least one run it is over 72 m. p. h. The maximum speed allowed is 100 m. p. h. and necessarily has to be maintained for long distances. Such schedules, totaling approximately 50,000 miles a day, are now being operated by the railroads of the United States, the total train-miles run is now well over 35,000,000, and the on-time performance is nearly 95 per cent. To make this possible, about 25,000 miles of track must be in condition to permit trains to operate over them at uninterrupted and practically unrestricted speeds every day in the year.

### Curve Standards

When Zephyr service was established, we decided on approximately the following standards for curves, which were based on studies made and such experience as we had gained from a few trial runs:

Curvature	Elevation (inches)	Speed (m.p.h.)
1 deg. 00 min.	2½	90
1 " 30 "	3	90
2 " 00 "	3½	80
3 " 00 "	4	65
4 " 00 "	5	55

These speeds allowed an ample factor of safety and we thought they would insure passenger comfort. Subsequent events proved us to be nearly correct in this respect, but we quickly gained additional knowledge from experience. We learned that, when the alignment permitted them, speeds of over 90 m. p. h. must be allowed in order to overcome unavoidable delays and to permit the trains to operate on schedule consistently. For speeds of 90 to 100 m. p. h. we found that, to assure riding comfort, spiral length was fully as important as superelevation, and that vertical, as well as horizontal, curves had to be studied. When we first began to operate Zephyr trains between Chicago and Denver and between Chicago and St. Paul, we did not attempt to employ easement curves which would allow all the superelevation to be put in on the spiral, but carried part of the elevation out on the tangent, making sure that we had full elevation at the point of full curvature. This practice caused an undesirable lurch in trains at the ends of curves and the standard was modified.

When the track standards outlined above were adopted, we knew that they were not the most desirable. We did know that, with the speed restrictions that they established, they insured absolute safety and, we believed, a reasonable degree of comfort. Moreover, as most of the 1-deg. curves on the lines mentioned already carried 2½ in. of elevation and a short spiral, the track work to be done was greatly reduced, being confined

largely to curves sharper than 1 deg., on which the elevation had to be generally increased. The Burlington was fortunate in that on both the Denver and St. Paul lines, and, as a matter of fact, on nearly all other lines on which we now operate Zephyrs, except the line between Denver and Dallas, Tex., there were few curves of more than 2 deg., except in some of the terminals and at important river crossings. This was a most important advantage.

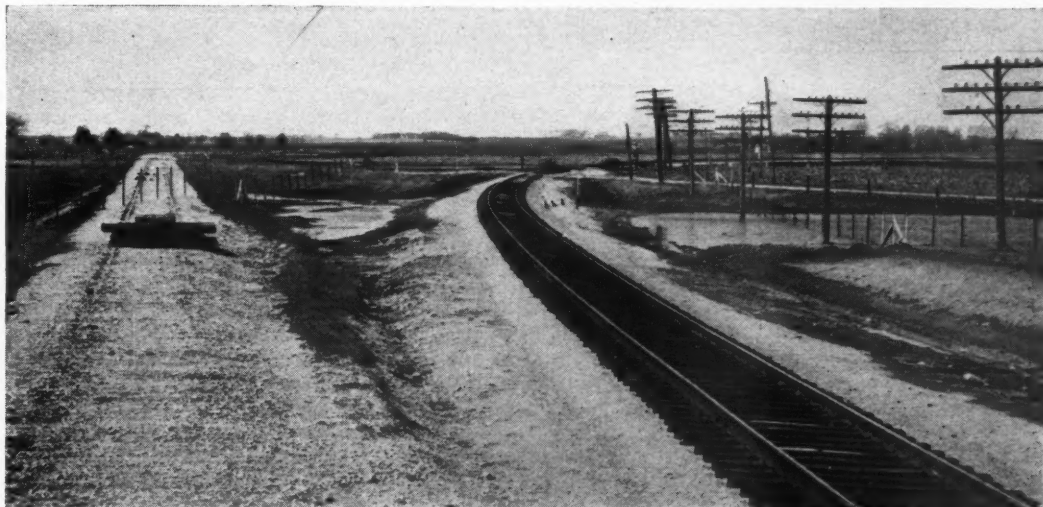
### Facts About Restrictions

Studies made before the Zephyrs were put in service indicated that acceleration in the higher-speed brackets was comparatively slow; therefore, it would be desirable to remove or raise speed restrictions wherever this could be done. Very little of this work could be done in advance of starting the service, and experience soon verified our studies. Since any curve sharper than 1 deg. 30 min. was restrictive and, as acceleration was slow above 80 m. p. h., the presence of 2-deg. curves every few miles practically meant an 80-m. p. h. railroad. We also learned that when a train has attained a speed of 90 m. p. h. it requires great will power on the part of the motorman to reduce the speed to 80 m. p. h. for a 2-deg. curve when he knows that 90 m. p. h. is safe, that it will require a number of miles and minutes to again attain that speed, and that 90 m. p. h. is needed to make the schedule.

As a result, the speed restrictions that were set up were often exceeded, somewhat with a noticeable decrease in comfort. This led to a decision to reduce all curves to 1 deg. where this could be done at a reasonable cost, eliminating first what we called isolated restrictions, that is, occasional curves over 1 deg. 30 min. in what was otherwise 90-m. p. h. territory. This program has been followed consistently and, as a result, we now have many stretches of 50 miles or more in length, where speeds need not be reduced, and there are several places where the distance is over 100 miles. This makes possible consistent and uniform high speeds, and, unless there are unusual delays, the schedule can be made comfortably and the speed kept well below the maximum permitted. As part of the program of reducing delays and of raising speed restrictions, longer turnouts were installed at the ends of double track, at important and frequently used crossovers, etc. Our standard turnout for such locations embodies a No. 20 frog and 30-ft. curved points, through which the permissible speed is 50 m. p. h.

Another thing that experience taught us was that a

Curves in High-Speed Territory on the Burlington Have Been Reduced to 1 Deg. Wherever This Could Be Done at Reasonable Cost



short curve, even if light, causes a noticeable lurch at high speeds, and that when the proper easement is introduced the spirals often meet or overlap and there is no true curvature left. As a corrective measure in such instances, we reduced the degree of curvature, working to a minimum of 450 ft. of simple curve between spirals.

The standards that we have established and to which most of our high-speed lines now conform are as follows:

Degree of Curve	Elevation (inches)	Length of Spiral (feet)	Speed (m.p.h.)
0 deg. 20 min.	1 1/4	150	100
0 " 30 "	1 3/4	200	100
1 " 00 "	3 1/2	400	100
1 " 30 "	5	500	90
2 " 00 "	5	500	80
3 " 00 "	5	400	65
4 " 00 "	5	300	55

The superelevation is all introduced on the easement curve, the track being level at the point of spiral and full elevation being attained at the point of full curvature.

### Modifications of Standards

Some modification of these standards is necessary at times due to local conditions which would involve an unreasonable expense if the standard were rigidly adhered to. The field party is allowed to make changes within certain defined limits, but no great departure from the standard is allowed to be made, except on authority of the chief engineer or engineer maintenance of way. Generally, we have been able to work to the standards established, so that now practically all curves on our high-speed lines carry the standard superelevation and corresponding spiral.

To assist the track forces in maintaining the curves and to expedite the running out of the curves when necessary, permanent rail monuments are set at the points of spiral, points of curve, ends of curve and points of tangent, and, if the curve is long, at several intermediate points on the simple curve. For the convenience of track forces these monuments are stenciled with figures showing the degree of curve and the elevation to be carried. We have found this to be worthwhile. Our experience has now been sufficient to satisfy us that the standards set up are adequate, and the track has been adjusted to these standards over a three-year period without excessive expenditures.

I have stated that the alignment of the Burlington was generally such that it was adapted to high-speed operation, and that we have reduced curves in many places which imposed speed restriction. This is true, but it should not be thought that we were so fortunate or that the problem was so easy that all restrictions could be eliminated. On our high-speed lines we still have a very few 3-deg. curves, on which train speeds are restricted to 65 m. p. h., and a greater number of 2-deg. curves on which speeds are limited to 80 m. p. h. Generally such curves are located in groups so that the reduced speed may be in effect for some distance, in a few cases for some miles.

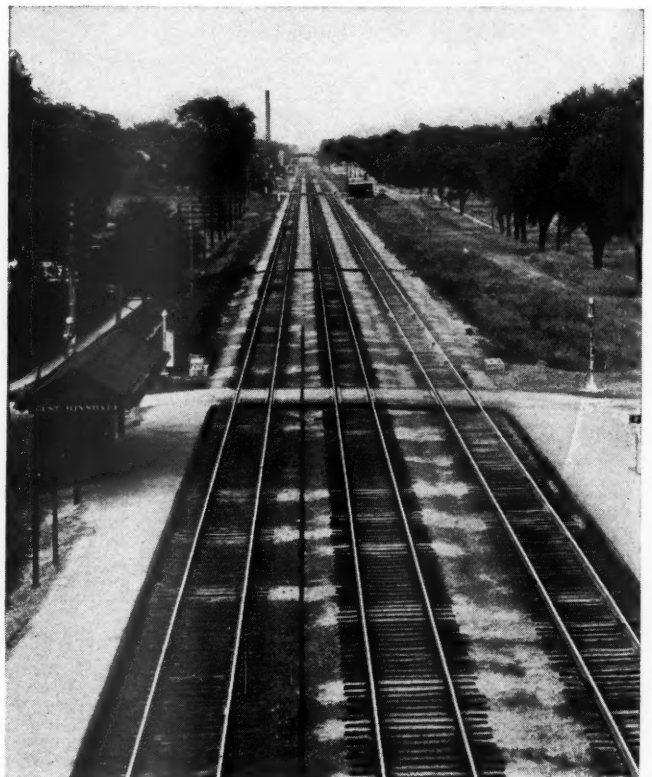
As already stated, such curve-reduction work as we have been able to do has been directed toward the reduction of isolated curves, for it is such curves that cause speed reductions in what might otherwise be unrestricted territory for several miles. We felt justified in spending considerably more money to reduce one such curve than might have been required to reduce one or more curves in locations where unrestricted speeds would not be made possible for as great a distance.

In other words, it has been our policy to provide stretches of track without speed restrictions that are as long as practicable, and to leave groups of curves to be corrected at a later time when funds might be available. We have found this policy to work very well in prac-

tice. It is felt that the 90 sec. that might be gained in 10 miles by increasing the speed from 80 to 100 m. p. h. does not justify the expenditure that would be required in some instances to achieve this result. However, the increased riding comfort must also be considered and is a factor to be weighed when studies are being made to determine what expenditure is justified.

### Slow Orders

A slow order is an isolated restriction and, therefore, is to be avoided wherever possible. On a very tight schedule two short slow orders of 50 m. p. h. in a distance of several hundred miles may make a high on-time



A Section of the High-Speed Main Line of the Burlington in the Chicago Suburban Territory

performance most difficult. This statement may seem rather strong, but experience has proven it to be true. It shows how accurately some of the schedules that are operated today are adjusted to the conditions which govern them. As slow orders are such a handicap to operation, it has become necessary for the maintenance of way department to revise its methods radically in many cases, and the closest supervision is needed at all times to insure that no slow orders are in effect unless they are absolutely needed. If slow orders are used, the limit imposed should be as high as is consistent with safety. This may increase the cost of doing the work in some cases but very often careful planning can almost, if not entirely, offset this extra cost. This problem constitutes a stimulating challenge to maintenance officers.

A question that is often asked is, "To what extent are maintenance of way costs increased by the operation of these fast schedules?" I cannot answer this question and I doubt if anyone can do so definitely. On the Burlington, as I have said—and I think this applies to all roads—some work was necessary to condition the track for a speed of 90 to 100 m. p. h. What had to be done depended on the standard to which the track



was being maintained and the extent to which train speeds were being increased. So far as I have been able to learn, no very large expenditures were necessary on any road. Once the condition of the track has been brought to the new standard required, we have not found that maintaining it for a speed of 100 m. p. h. is particularly difficult.

I do not mean to say that it is no more expensive to keep track in shape for this speed than for speeds of 60 m. p. h. It is more expensive, but once the necessary standard is attained the additional cost is not excessive. Ties must be maintained to a more uniform condition, very little rail-end batter can be allowed, the condition of the joints must be very good and the line and surface must be nearly perfect. Maintaining track to this standard is mostly a matter of giving careful attention to details, and it means doing what needs to be done when it should be done. While expenses are naturally increased by this policy, a larger future expenditure is often prevented so that the total over a period of time may not be increased greatly.

### Effect of High Speeds on Track

Another question asked by the engineer or track man is, "What effect does this high speed have on the track structure?" My answer is that it depends largely on the equipment operated. If we operated only Zephyrs, our job would be comparatively easy. Even if all equipment, including both motive power and cars, were built for the speed at which it must now be operated, it would not be very difficult, but when locomotives designed to pull heavy tonnages at 35 m. p. h. must operate at 60 to 70 m. p. h., and locomotives designed to handle passenger trains at 60 to 70 m. p. h. now regularly run at 90 to 100 m. p. h., our problem becomes difficult and damage is done to the track.

The speed restrictions that have been established on the Burlington, as mentioned previously, apply to Zephyr trains, that is, light-weight cars and Diesel-electric power. To insure equal riding comfort, the old style conventional equipment is held to speeds about 10 m. p. h. below those mentioned, even when drawn by Diesel-electric power. The permissible speed of steam locomotives depends on the design of the engine.

As a result of locomotive tests made about two years ago, the results of which have subsequently been confirmed by observation and experience, we determined that certain steam engines, when handling Zephyr-type equipment, could be allowed to operate at the same speed as Diesel-electric power, the only exceptions being on curves of 1 deg. 30 min. and over, and through turnouts. Here the permissible speeds must be reduced somewhat. These locomotives were designed and built especially for operation at high speeds. They are equipped with light side rods and reciprocating parts, roller bearings and other improvements in design, so that they are essentially high-speed locomotives and may be operated at 90 to 100 m. p. h. without damage to the track structure. Other locomotives, also built for high speeds, but with a heavier axle load, are restricted to permissible speeds 10 m. p. h. below those mentioned, and in some cases are further restricted on certain curves and turnouts. The policy regarding these locomotives has been in effect long enough to permit us to be reasonably sure that we are not making any serious mistake. However, while these locomotives do not permanently damage the track structure when operated at the speeds allowed, the maintenance required is increased decidedly as compared with Diesel power.

The great increase in passenger-train speeds that has

occurred during the last ten years—in fact, in the last five years—has been mentioned. There has been a similar or even greater increase in freight-train speeds during the same period. Freight equipment has been improved and the speed of freight trains has been increased over 60 per cent. Today the average fast freight train runs as fast as the average passenger train did a few years ago. This increased speed is more noticeable in its effect on the track structure and in the increased maintenance of way costs which it entails than is the higher speed of passenger trains.

Many roads have carried out bridge-strengthening programs on their high-speed lines, or are now in the process of doing so. These have been made necessary by heavier axle loads as well as by increased speeds, and apply generally to bridges designed and built 30 to 40 years ago. In some cases complete renewal of the structure is necessary, but more often the improvement is made by applying heavier and better-designed lateral bracing, stronger tie rods and braces, and new and heavier cover plates. It is not strange that this is necessary. Rather, it is remarkable that bridges built 40 years ago are still largely adequate for present day demands when consideration is given to the great increases in axle loads and speeds that have occurred in the meantime.

In order to operate trains at high speeds with safety, it must be possible to stop quickly and to know in advance when sudden or unexpected stops must be made. This has led to the respacing of signals on many lines where the established braking distance, although sufficient for previous slower speeds, was not adequate for the higher speeds of today. This program has been carried on steadily and has greatly improved signal performance and increased the factor of safety. The necessary extension of the distance at which highway warning signals are brought into operation formed a part of this program.

### Improvements in Brakes

I shall not attempt to discuss in detail the subject of brakes, and the improvements made. A great deal of study has been devoted to this subject and noticeable advancement has been made. The excessive heating and rapid wear of the wheels on high-speed trains have presented a serious problem which led to the development of a disc-type brake that does not operate on the wheel tread. This brake is still somewhat of an experiment, although it is in use on some regularly operated trains.

It is interesting to take note of the part that the condition of the track, and particularly of the rail, plays in the stopping of trains operating at high speeds—a subject that was recently suggested to me by our air brake engineer. It is extremely important, he said, that the surface of the ball of the rail and that of the wheel tread be in the same plane for the greatest possible distance in order to give the maximum adhesion surfaces. This is not a particularly new thought, but when he suggested that smooth even rail ends, with an almost complete absence of rail-end batter, were essential, and explained this by saying that at speeds of 100 m. p. h. any slight irregularity in the rail surface greatly reduces braking action, owing to the fact that it causes the wheels to lose contact with the rail for a noticeable time and distance, he did suggest a new idea to me and advance another argument for maintaining the joints and rail ends in the best possible condition.

Thus, in the building and maintenance of track for high-speed train operation, the judgment of the engineer has been called upon in the location of the line, and then

the trackman, the bridgeman, the signalman and the welder have been called upon to exercise all the skill at their command and to co-operate at all times to meet the demands made on the respective parts of the property for which they are responsible. In this task they have had the help and co-operation of the railway supply industry in developing improved materials, tools and equipment. For complete success, the mechanical departments of the railways, and the supply industry allied

with them, must co-operate in the design and maintenance of high-speed equipment that is suitable for the demands that are made on it. On the Burlington we have had this co-operation and it has been given so wholeheartedly that it is possible for me to say with confidence that we can build and maintain the track structure for present-day high speeds without excessive expenditures, and with the knowledge that safety of operation is assured.

## Non-Union Telegraphers Barred From Board Hearings Affecting Their Livelihood

**T**WO agent-telegraphers on the Clinchfield, due to necessary reductions in staff in 1931 and 1932, were displaced by senior employees and forced to accept clerical positions not covered by the telegraphers' agreement. They continued to hold these positions for a number of years, meanwhile maintaining their seniority status as telegraphers as provided in the telegraphers' agreement with the railroad. In the course of events several telegraphers' jobs opened up, but neither employee bid in because the pay was lower than the clerks' positions they already held.

Shortly thereafter, the general committee of the Order of Railroad Telegraphers on the Clinchfield demanded that the names of the two employees be removed from the telegraphers' seniority roster, on the ground that they had refused opportunities to return to positions covered by the telegraphers' agreement and hence had failed to comply with rules protecting their seniority status. The Clinchfield refused to remove employees' names, contending it has no authority to do so under agreement rules.

### Employees Not Allowed to Appear in Their Defense

Failing to agree, the union and railroad submitted the dispute to the Third division of the National Railroad Adjustment Board. At the outset, carrier members of the Board sought to have formal notice given the two employees so that they might be heard in their own defense orally or by petition. To this the labor members refused to agree; held that the case was deadlocked and asked the National Mediation Board to assign a referee to the controversy. On their part, the carrier members addressed the Mediation Board to the effect that since the merits of the case had not yet been considered and the necessary parties in interest had not been given opportunity to be heard, a lawful award could not be considered and the selection of a referee, therefore, would be inappropriate. The Mediation Board nevertheless assigned Dr. William H. Spencer, professor of business law and dean of the School of Business, University of Chicago, to the case, who sustained the claim of the Order of Telegraphers that the employees be dropped from the seniority roster.

Since the disagreement among members of the Board centered on the question of the right of the individual employees affected to be heard, and *not* on the original seniority issue, the referee based his opinion on arguments justifying the right of the Board to make an award without considering an appearance or petition of the two employees. On the merits of the claim itself, he wrote but one short paragraph holding that the employees voluntarily left the service covered by the

telegraphers' agreement and hence lost seniority right thereunder.

### Case Not Legally Subject to Referee's Opinion

Carrier members of the Division wrote a vigorous dissent to Dr. Spencer's opinion. By refusing to notify the two employees, they said, the Board denied them their constitutional rights. Furthermore, they held, assignment of the case to a referee was of itself a violation of the Railway Labor Act, since that act does not authorize a referee to assist a division in settling a deadlock on an *issue of procedure*, which this deadlock clearly was.

Curiously enough, Dr. Spencer, in a study of operation of the Adjustment Board published in 1938 (reviewed in the *Railway Age* of August 27, 1938, page 325), himself took this position. In discussing a parallel case deadlocked on the issue of opportunity for all parties to be heard, he pointed out that under the Act "the referee's sole function is to assist a division in the decision of deadlocked cases involving disputes arising out of the interpretation or application of the rules of collective agreements." Wrote the carrier members: "Thus, at the threshold, Dr. Spencer became the referee in this case by an about face from a stand he had publicly taken that the act 'does not authorize a referee to assist a division in settling a deadlock on an issue of the Board's procedure.'"

In the same monograph Dr. Spencer declared that a decision of the Seventh Circuit Court of Appeals holding that all employees affected by an award are entitled to notice of a hearing (*Nord et al v. Griffin*) "stands as law on the issue." Yet in the opinion here under discussion he ignored that part of the same decision applying to the point in issue. Of this the dissenters wrote: "Comparing the referee's pronouncement then (March, 1938) that the decision in *Nord v. Griffin* 'stands as law on the issue' with his action in this award disregarding or ignoring it, the question is pertinent: does this award represent an impartial and unbiased expression or was his pronouncement then representative of a judicial concept?"

### Union May Speak for All Employees

The whole of the referee's lengthy opinion—including citations from 57 court decisions and a complicated discussion of the legal status of seniority rights—was considered point by point by the dissenters. But the chief target of their argument was that part of the Dr. Spencer's opinion which held that union representatives have the right to speak for all persons included within a class or craft covered by a collective agreement.



Briefly, the referee declared that, according to pertinent state and federal court decisions, seniority, as a property right, "exists only by virtue of a collective or group arrangement between employees and employers," and that practically all courts, in discussing seniority rights have described them as something inchoate and intangible." In addition, it was his judgment that even further limitation on the right of an individual to work or make an individual contract is imposed by the Railway Labor Act, insofar as it authorizes the making of collective agreements binding on all employees within a given bargaining unit.

From this the referee reasoned that seniority rights depend upon agreements made by "a properly accredited representative of the employees;" that since the act gives authority to the single union authority to represent all employees of the class in its jurisdiction in negotiations on the property, it has the same authority to represent them in disputes before the Adjustment Board.

### Union Authority the Real Issue

The dissenting railroad members saw in this position of Dr. Spencer the "Q. E. D. of this lengthy dissertation and the real reason for going against the weight of legal authority on all the points raised. If the desideratum, at which the referee aimed, were not the establishment of the supremacy of the union representation in all questions arising under a collective agreement, or within the craft or class covered by such agreements, why was it necessary to go to such lengths of research and analysis to deny to Willis and Kinkead [employees affected] an opportunity to speak in their own behalf?"

The two telegraphers in the case were not union members. This fact was not made part of the record in the case, but was learned by subsequent inquiry. Even without such verification, however, "the assumption that

they are non-members will strain no one's imagination," as the dissenting members put it.

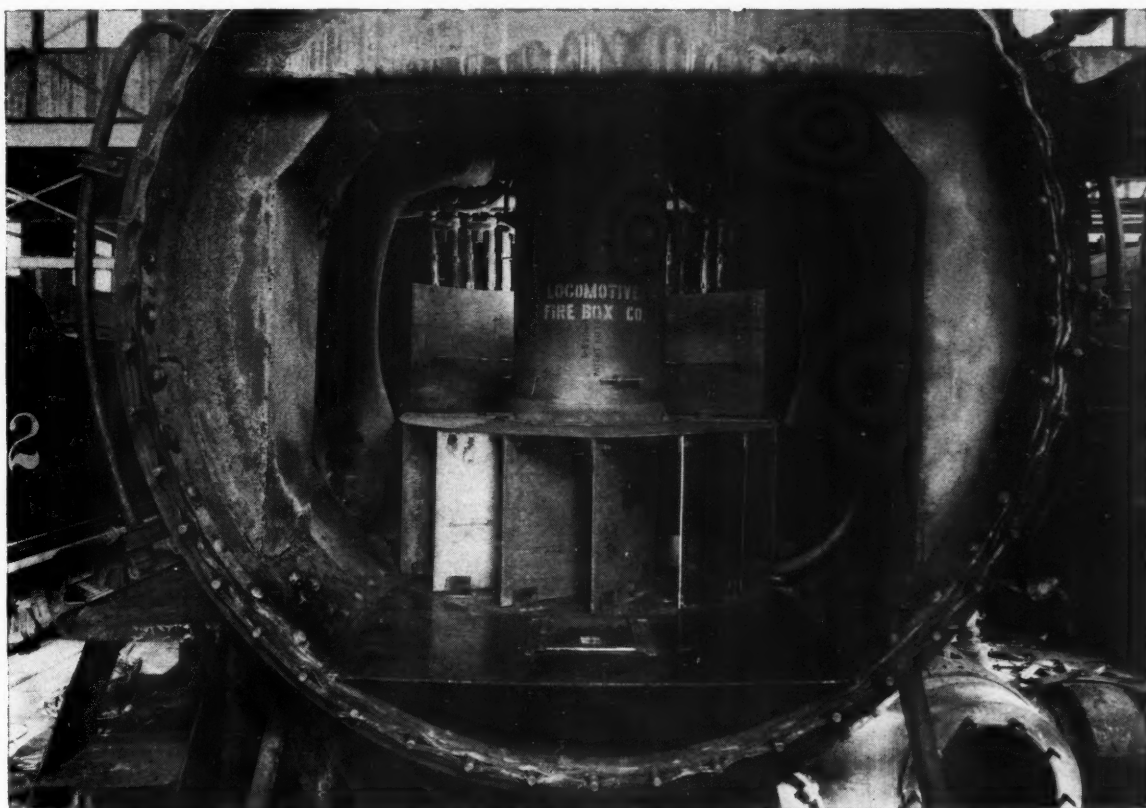
For Reader's check:—N. R. A. B., Third Division, Award 844, Docket TE-861. Respondents—Order of Railroad Telegraphers, Clinchfield.

## Further Development of Anderson Front End

**T**HE Anderson locomotive front end was developed and successfully applied to about 150 locomotives on the Chicago, Milwaukee, St. Paul & Pacific, as described in the *Railway Age* of December 10, 1938. Manufacturing and sales rights for this device were acquired by the Locomotive Firebox Company, Chicago, about two years ago and further improvements and developments made to adapt the new front end design to general use on railroads throughout the country. The spark arresting unit, itself, is practically unchanged from the original design, but a number of important revisions in other details tend to simplify the construction and installation of the device, lengthen its service life, increase drafting efficiency and reduce materially the time and cost of all front-end maintenance work.

In early and extensive tests of the Anderson locomotive front end on the Milwaukee, it was demonstrated that this device would eliminate stack sparks and the attendant fire hazard, but, in making the application, the vertical baffle and horizontal table plates were still used with the relatively high nozzle stand, compelling all gases and cinders to take the usual paths as in the Master Mechanic's arrangement.

Netting had been eliminated, but the restrictions set up



General Arrangement and Method of Application of Improved Anderson Spark-Arrester—Baffles Behind and Above the Arrester Are the Only Obstructions to the Direct Flow of gases—The Space Under the False Floor Is Closed at the Rear

by the tortuous paths of the gases and cinders around the baffle and table plates still produced a marked reduction in the draft at the front tube sheet. In order to reduce the loss in draft and to provide a uniform draft over the entire tube sheet, the vertical baffle plate and horizontal table plates were removed. A low nozzle stand was applied and the arrester dropped down to the top of the low stand. With these changes, the stack extension was lengthened. A false floor was placed in the bottom of the smoke box to prevent the accumulation of cinders. Vertical floating baffles were installed behind and above the arrester, acting as cinder breakers, but without materially interfering with the draft. These changes in application produced the desired draft conditions in the smokebox in that the draft at the tube sheet was greatly increased over the previous arrangement and the draft throughout the entire smokebox was practically uniform at all points, a condition long desired, but difficult to attain.

The effect of the application of the low nozzle and lengthened stack, which heretofore has been impracticable on account of the necessity of handling all gases and cinders underneath the table plate, is a direct improvement in draft with the same back pressure. The increase in stack height and improvement in draft conditions at the tube sheet make it possible to operate a locomotive with an enlarged nozzle tip and reduced back pressure at comparable rates of evaporation. On the other hand, if it is desired to increase the total evaporation, which may necessitate an increased coal rate, this increase in evaporation can be obtained without reducing the nozzle tip to create more draft. In either case, it is claimed that a direct improvement is effected by the use of the Anderson front end as a draft appliance as well as a spark eliminator. The equalization of draft over the entire tube sheet and throughout the entire smokebox also tends to cause a reduction of cinder cutting, especially in the smokebox.

The changes mentioned were devised primarily to improve the Anderson front end as a draft appliance, but after being made, it developed that they greatly facilitated the installation of the front end and other maintenance work in the smokebox. The elimination of vertical baffle and horizontal table plates, together with the simplicity of the arrester unit, makes it possible to apply the arrester in a short time. With the cinder breakers made and the false bottom in the smokebox, it is relatively easy to apply the arrester, lift pipe, and stack extension.

In testing superheater units, no plates have to be removed to see all of the joints in the header. All that is required is to remove two vanes in the arrester, block the nozzle, and then apply the pressure. It is not even necessary to get into the smokebox to see if the units are leaking. When all of the units have to be taken out, this can be done quickly and cheaply by removing the top floating baffle, lowering the lift pipe so that the stack extension can be removed, raising the lift pipe and removing it after the stack extension is out of the way, and then taking all of the units out over the top of the arrester. In addition to the saving in time and cost of front end maintenance work, there is an important reduction in locomotive out-of-service time.

Experience indicates that locomotives can be turned in an eight-hour period for superheater-unit repairs when equipped with this type of front end. Units on each side of the lift pipe can be removed by simply dropping the cinder breaker without disturbing any other part of the smoke box. It is possible to apply the Anderson front end where feedwater heaters are installed without making any additional changes in the smoke box.

## War Shifts Student Tours To U. S. A. Itineraries

**A**LL-INCLUSIVE tours in which railroad cars are used as headquarters and bicycles are used for shorter side trips feature the 1941 program of the Students International Travel Association, known popularly as "SITA." Initiated eight years ago, this organization sponsors all-expense tours to all parts of the world limited in composition to teachers and students and led by experienced educators.

Whereas in former years "SITA" emphasized European travel, war conditions have forced it to concentrate its tours in the New World, where it is now exploiting the peculiar advantages of railroad transportation.

A typical 54-day, all-inclusive railroad-bicycle tour will illustrate the group's use of railroad facilities. By special arrangement with certain western carriers "SITA" will be provided with two sleeping cars and a special baggage car which will be used for group cooking and as a "traveling club car"—all three air-conditioned and reserved for the group. These cars are for use at certain lay-over points as well as on runs. Upon arrival at points of special interest, members of the group will proceed to camp sites on bicycles which are carried on the train, while automobiles hired in advance will accompany the group carrying tents, sleeping bags and cooking equipment.

### The Itinerary

Itinerary of the trip—which costs \$195—Chicago to Chicago—is as follows:

- June 30.....Leave Chicago on the Northern Pacific's "North Coast."
- July 2-8.....A week on an operating cattle ranch at Big Timber, Mont.
- July 9-15.....Proceed by rail to Yellowstone Park, thence a week of bicycling.
- July 16.....Entrain at Livingston, Mont.
- July 17.....Arrive in Butte, Mont., for visit to copper mines.
- July 18.....Arrive Spokane, Wash.
- July 20.....Arrive Portland, Ore.
- July 21-24.....Travel via Southern Pacific to Chiloquin, Ore., thence cycle to Crater Lake and Klamath Falls, Ore., where the group entrains for San Francisco, Cal.
- July 25-26.....Survey of city and neighboring redwood area by bicycle.
- July 27-31.....Proceed by Southern Pacific and Great Northern to Chehalis, Wash., where cycling trip is made to Mount Rainier.
- August 1-7.....Cycling on the Olympic Peninsula to Port Angeles, Wash.
- August 8-11.....By steamer to Victoria, B. C. Cycling on Vancouver Island and steamer to Vancouver, B. C.
- August 12.....By steamer to Seattle, Wash.
- August 13.....Cycle in Seattle and vicinity; leaving on the Great Northern's "Empire Builder."
- August 14.....Arrive in Belton, Mont., and cycle to Lake McDonald camp site, Glacier National Park.
- August 15-20.....Cycling in Glacier and Waterton National Parks.
- August 22.....Arrive in Chicago.

Other tours scheduled for 1941 which utilize railroad facilities chiefly are a 59-day rail-motor-tour covering Yellowstone National Park, Grand Canyon, Los Angeles, San Francisco, Yosemite, and 12 days in Mexico; a 47-day railroad-bicycle tour New York to New York, covering Quebec, Nova Scotia and New England via the Canadian National and the New York, New Haven & Hartford; a 50-day all-inclusive bicycle-horseback-motor-rail tour from Mexico City to Mexico City, utilizing many of the lines of the National of Mexico; and bicycle-rail-boat tours to Nova Scotia utilizing the facilities of the Dominion Atlantic and Canadian National.

THE LONG ISLAND initiated special Sunday excursions from New York directly to Camp Upton, Yaphank, N. Y., on April 20. Round-trip fare is set at \$1.35 for the round trip of 122 mi. The excursions are planned for the benefit of friends and relatives of troops stationed at the camp.



# Bond Elected President of E. J. & E.

Scott M. Rogers President since 1931  
will retire on May 1

**T**HOMAS E. BOND, vice-president of the Elgin, Joliet & Eastern, has been elected president to succeed Scott M. Rogers, who will retire on May 1. Mr. Bond, on that date, will become the head of one of the busiest and most important terminal lines in this country.

The Elgin, Joliet & Eastern, known as the Chicago Outer Belt Line, comprises 390 miles of lines extending from Waukegan, Ill., around the Greater-Chicago area through Joliet, Ill., to Gary, Ind., Porter, Ind., and South Chicago, with branches and industrial tracks serving Aurora, Ill., and the manufacturing districts in the vicinity of South Chicago and Gary, Ind., and also a branch extending from Walker, Ill., through Minooka to Goose Lake.

The E. J. & E. has interchange connections with all trunk line roads entering Chicago and handles a large volume of interchange traffic around the congested terminal areas in the city proper. In addition, the E. J. & E. originates a large volume of traffic from industries on its lines, especially from the mills of the Carnegie-Illinois Steel Company and other subsidiaries of the United States Steel Corporation. In order to handle this traffic expeditiously, this road owns an unusually large amount of equipment for a property of its mileage, including 11,427 freight cars and 267 locomotives.

The difficulties confronting Mr. Rogers during the ten years of his presidency are reflected in the wide fluctuation in the volume of business handled, for he was confronted with a decline in operating revenues from a pre-depression maximum of \$26,412,441 in 1929 to \$7,764,089 in 1932 and then recovery to \$21,340,187 in 1937, and to a still higher level of operations to the present time. Such violent fluctuations in traffic present problems of unusual magnitude to any management. That the E. J. & E. has carried on as efficiently as it has testifies to the excellence of its executive direction during these years.

Scott M. Rogers was born at Newport Pagnall, England, on April 18, 1871, and entered railway service in 1888 as a stenographer and clerk on the Iowa Central (now part of the Minneapolis & St. Louis). Five years later he was advanced to chief clerk to the general manager and in 1894 he was appointed purchasing agent and assistant to the general manager, with headquarters at Marshalltown, Iowa. In 1901 he was appointed chief clerk to the president of the Elgin, Joliet & Eastern, and in the following year he was promoted to purchasing



Blank & Stoller

Thomas E. Bond



Blank & Stoller

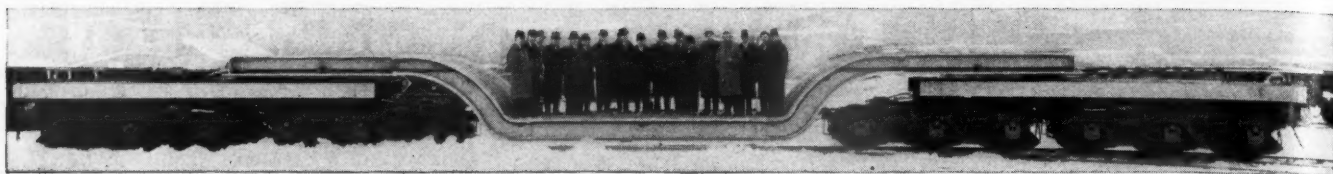
Scott M. Rogers

agent. Mr. Rogers was elected vice-president in charge of operation of the E. J. & E. in 1909, and with the exception of the period during federal control of the railroads when he served as that road's general manager, served in that position until May 1, 1931, when he was elected president of the E. J. & E.

Thomas E. Bond was born at Toledo, Ohio, on November 2, 1876, and entered the service of the Denver & Rio Grande Western in 1902. Four years later he became assistant traffic manager of the Colorado Fuel & Iron Company at Denver, Colo., where he remained for two years, at the end of which time he entered the service of the E. J. & E. as chief tariff clerk. Mr. Bond served successively with this road as chief of the tariff bureau, assistant traffic manager and traffic manager. During the World War Mr. Bond was assistant western traffic manager of the Government Food Administration, and between the time of the close of the war and the return of the railroads to private operation he was assigned to the Western Freight Traffic committee of the United States Railroad Administration. He was appointed traffic manager of the E. J. & E. in 1923, and on March 7, 1932, he was elected vice-president, with headquarters at Chicago.

THE ATCHISON, TOPEKA & SANTA FE has recently issued a 24-page booklet describing the miniature railroad exhibit which it has installed in the Museum of Science & Industry at Jackson Park, Chicago.

The exhibit which is laid on a table having dimensions 50 ft. by 60 ft., presents a complete cross-section of industrial and agricultural United States, including a modern city, farm land, oil fields, industrial plants, cattle ranches, forests, deserts and mines. Typical portions of the exhibit and model rolling stock are pictured in large-size photographs which bring out the details of the workmanship. Also explained in diagram is the automatic signal system.



A 250-Ton Well Car Built for the Carnegie-Illinois Steel Corporation by the Greenville Steel Car Company

## High-Capacity Well Car Built by Welding

Both Thermit and arc processes employed in fabricating  
a well platform for loads of over 250 tons

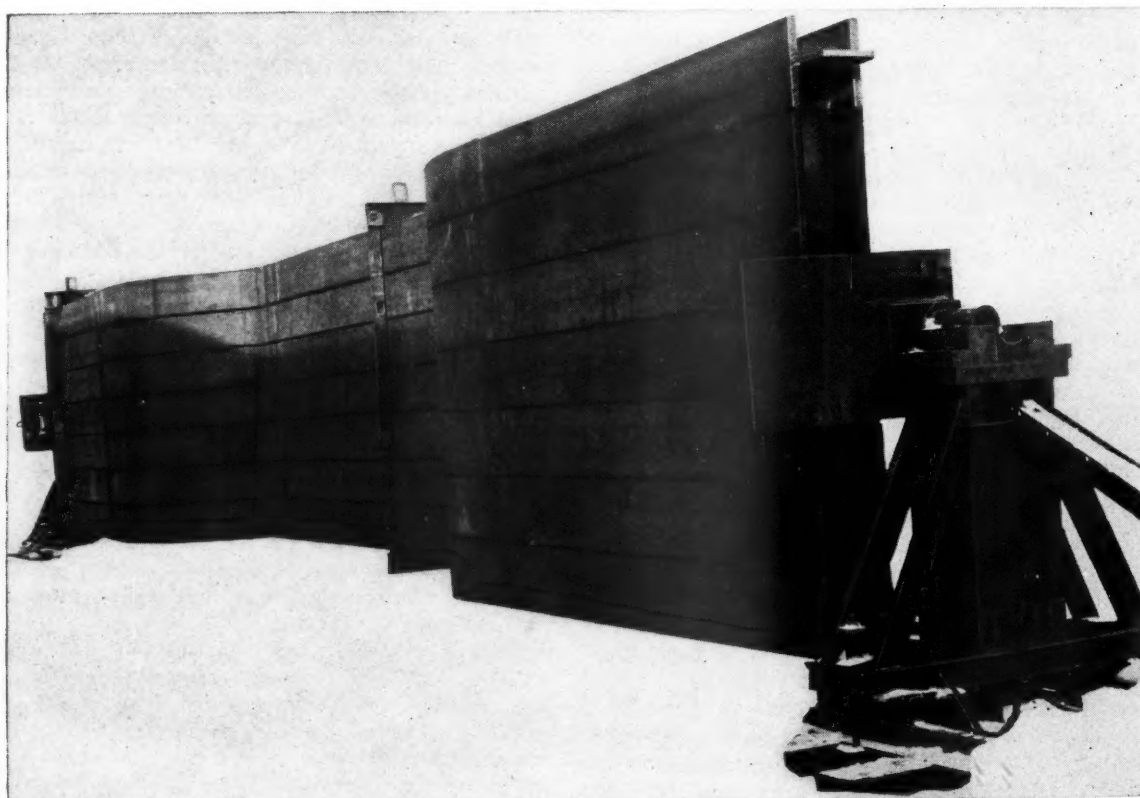
**A** WELL car, 90 ft. long over the coupler pulling faces with a load capacity of over 250 tons, has been built for the Carnegie-Illinois Steel Corporation by the Greenville Steel Car Company. The car is for use in carrying ingot molds between two Carnegie-Illinois plants and is completely fitted for regular interchange movements. Aside from its great size and high load-carrying capacity, the car is unusual in that the completely welded body involved the use of Thermit welding as well as arc welding in its fabrication and because the load is carried on four six-wheel trucks, two under each end.

The car consists of two auxiliary bodies on the center sills of each of which are center plates which rest on two

of the six-wheel trucks and in one end of each of which is mounted the coupler and draft gear. The inner end of each auxiliary body terminates at the bolster. The well body is carried on the two auxiliary bodies through large center plates.

The trucks are the Buckeye six-wheel type with 36-in. rolled-steel wheels mounted on axles with 7-in. by 14-in. journals. The wheel base of each truck is 10 ft. The truck castings are of Grade B steel.

The brakes consist of two sets of AB equipment with special features, furnished by the Westinghouse Air Brake Company, and eight 10-in. by 8-in. brake cylinders, one on each side of each of the four trucks. On each auxiliary body is mounted the standard AB valve



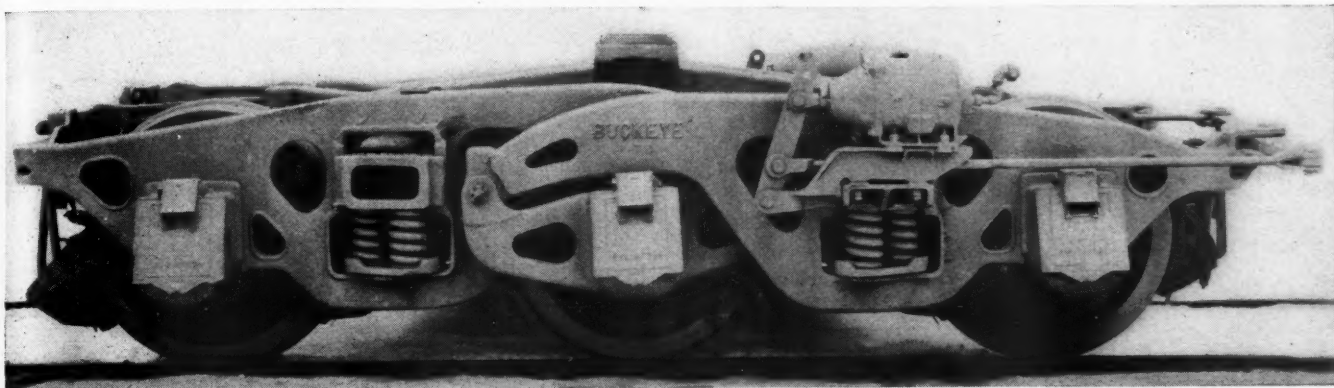
The Well-Platform Assembled in the Arc-Welding Jig—The Thermit Weld Collars on the Beams Are Clearly Shown



with its double-compartment reservoir, a relay valve, and a separate auxiliary reservoir. The AB valve directly controls the pressure in two of the brake cylinders and this, in turn, operates the relay valve which serves to develop a corresponding pressure in the other two from the separate auxiliary reservoir. Each cylinder actuates the clasp brake rigging for its set of three wheels. Flex-

jig, the remaining beams were dropped in place as required, positioned by the diaphragm stiffeners, and each one welded in position. Welding was started with twelve operators working in 10-hr. shifts and continued without interruption until the work was finished.

Upon completion of the welding of the long beams and the end bolsters, the trunnion fixtures were removed



One of the Buckeye Six-Wheel Trucks—The Wrought-Steel Wheels Are 36 in. in Diameter

ible armored hose is used in the brake-pipe line between the well body and the auxiliary bodies and in all the brake-cylinder pipe connections.

There is a hand brake on each end of the car and each hand brake operates the brakes on the two trucks at that end of the car.

The total weight of the car is 313,900 lb., of which 107,920 lb. is in the four trucks, 49,000 lb. in the two auxiliary bodies, and 156,980 lb. in the well body proper. The pay-load capacity at a rail load limit of 70,000 lb. per axle is 526,100 lb.

The car body is fabricated by arc welding together, longitudinally, seven long H-beams. Each H-beam, in turn, was made up of five separate pieces butt welded together by the Thermit process. These members comprise the central platform piece, two reverse-curve transition pieces, and two end pieces which terminate at the main bolsters. The two beams on the outside of the load-carrying platform are rolled steel, weighing 426 lb. per ft., and the five internal beams of the platform are rolled steel, weighing 370 lb. per ft. The end pieces are of rolled sections, weighing 264 lb. per ft.

The curved transition pieces were fabricated beams 16 in. wide and tapering from 18¾ in. high at the bottom to 16½ in. high at the top. They are made up of 1¾-in. web pieces and 3-in. flange pieces. The web pieces were flame cut to the required reverse curve. The top and bottom flanges were first machined with J-grooves at the edges for welding the beams together when completed and then bent to shape. The parts of each beam were then assembled in the jig and the flanges welded to the webs.

Following the completion of the transition pieces, the succeeding step was Thermit welding the seven long beams for the body of the car.

With the Thermit welding of the car-body beams completed, seven diaphragm stiffeners on 3-ft. centers were welded into the channels on each side of three of the long beams. The two end bolster beams were then welded to the center beam at right angles and this sub-assembly was bolted in place in a positioning jig equipped with trunnions to permit revolving of the assembly for compensation of warping and to enable all welds to be made downhand.

With the center beam and end bolster assembly in the

temporarily to permit inserting the end sills and then replaced so that the welding in of the end sills and body side bearings could be positioned. The jigs were then removed permanently and the center plates riveted and welded in place.

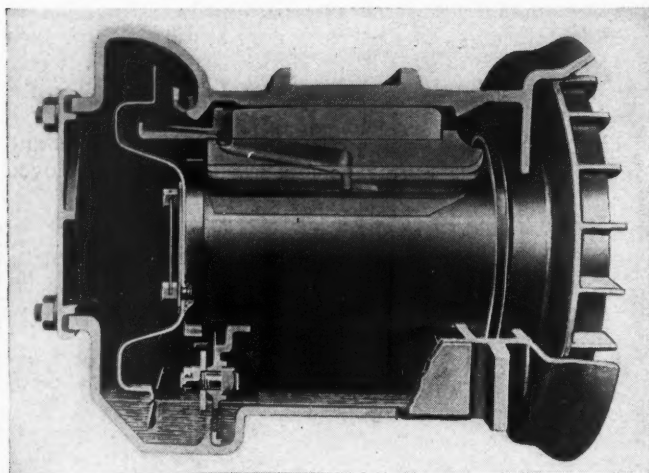
## Journal Boxes with Dust-Deflecting Fans

**T**HE National Malleable and Steel Castings Company, Cleveland, Ohio, has redesigned both its Isothermos and waste-packed journal boxes to include the application of a dust- and dirt-excluding fan in place of the standard dust guard. An additional feature has been incorporated with the fan in both applications. An oil-retaining ring is an integral part of the fan for the Isothermos box while included with the fan for the waste-packed box is a thrust ring that doubles the thrust area against the journal bearing over that in the present A. A. R. axle.

The Isothermos journal box is designed to meet modern railroad transportation requirements of heavier axle loads and higher speeds with reduced maintenance expense. They may be applied with A. A. R. standard axles to various types of trucks including the wide pedestal design generally used with roller-bearing boxes. When applied new, or when wheel renewals are made, the equipment may be operated immediately in high-speed service as special breaking-in is not required.

This journal box furnishes lubrication comparable to an oil bath, without the use of auxiliary parts that may be subject to wear. The box is properly lubricated by the use of an all-year grade of oil, making it unnecessary to change oil or to add thinning oil en route to protect against temperature changes. Seasonal oils are recommended only when temperatures are lower than 40 deg. below zero or when the boxes are in service in extra heavy equipment. Depending on the size, the box has an oil capacity of from 5 to 8 pints. This is about the same oil capacity as required for saturation in a waste-packed box. The oil circulation is about one pint a mile.

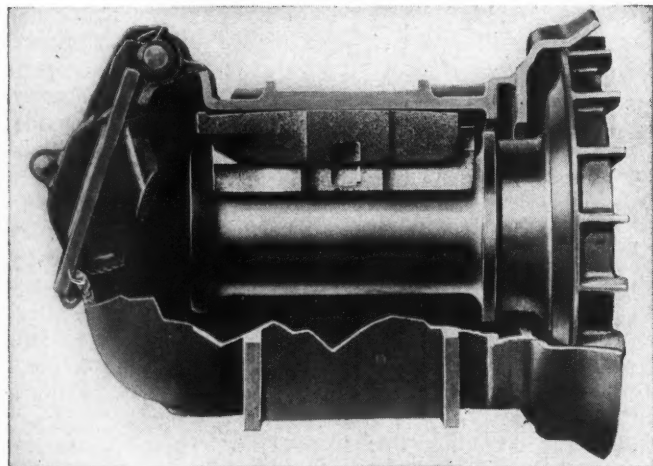
In one of the illustrations is shown the box assembly



The National Isothermos Journal-Box Assembly Produces Lubrication Comparable to an Oil Bath—The Dust-Deflecting Fan and the Oil-Retaining Ring Are Shown at the Right

applied with an A. A. R. standard axle. The dipper, attached to the end of the axle, carries the oil from the bottom of the box upward to the oil tray cast on the outer end of the wedge. At low speeds, the oil is dropped on the tray and at high speeds the oil is thrown to the top of the box from where it drains to the oil troughs cast in the box and then drops on the oil tray. From the tray, the oil passes through grooves in the bearings and is spread over the lengths of the journal. The grooves in the journal side of the bearing have a wedge-shaped space that retains a small amount of oil in contact with the journal when the equipment is standing. The oil remains in this space indefinitely and immediately lubricates the bearing when any movement of the equipment takes place. A baffle-retaining block is applied at the front end under the journal after the bearing and wedge are in proper position. This block restricts the vertical movement of the box with respect to the journal and prevents displacement of the wedge or bearing when operation is over rough track.

The oil-retaining ring and dirt-excluding fan is shrunk on the axle between the journal fillet and the wheel seat. The oil-retaining ring is located adjacent to the journal fillet while the projecting fan blades extend over the wheel hub. The fan blades are shielded by a circular hood located at the back end of the journal box. As the fan revolves with the axle inside this housing, the blades create a violent turbulence of air in this man-



The National Waste-Packed Journal Box with the Dust-Deflecting Fan and Thrust Ring Shrunk on the Axle—The Thrust Ring Doubles the Thrust Area Against the End of the Brass

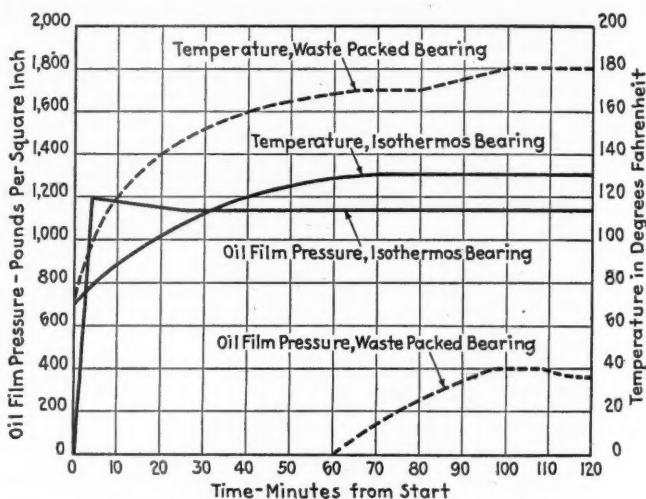
ner preventing the entrance of foreign matter into the box.

A special design of these boxes is available for service in freight cars that are handled over car-dumping machines. Cavities located in the sides of this box retain the oil while the box is on end during the dumping operation.

Among the outstanding records of Isothermos journal-box installations is that of two million locomotive tender miles under maximum wheel and tender loading without a hot box. These tenders operate in a climate where the temperatures range from 100 deg. above to 35 deg. below zero and use only an all-year oil.

Six high-speed Diesel-electric locomotives equipped with these boxes have operated more than 3,441,900 locomotive miles. These locomotives have an average availability of 95.5 per cent and one of them has had an availability of 99.3 per cent for 515,485 miles of service.

Under a freight car operating exclusively in service that requires the car to be unloaded on a car-dumping machine, journal boxes of the special car-dumping type have given six years of satisfactory service. The boxes



Typical Temperature and Oil-Film Pressure Curves for Waste-Packed and Isothermos Journal Bearings

were sealed and no lubrication attention was given them between the annual inspection period. This car operates more than 12,000 miles each year.

The data shown graphically on the chart were obtained from tests made on the National journal-box testing machine. The load on the 5½-in. by 10-in. journal was 20,000 lb. The speed was equivalent to 60 m. p. h. and the bearings were well broken in. Oil film pressures were measured at the center of the bearings by means of a high-pressure gage and temperatures were measured at the sides and near the rear of the bearings.

A comparison of the curves shows that the Isothermos box had a stable oil-film pressure from the start of the test while the waste-packed box bearing operated 60 min. before the oil-film pressure started to build up. At no time during the 120-min. operation was the oil-film pressure in the waste-packed box sufficient to carry the load completely.

The dust-deflecting and thrust-ring fan applied to the National waste-packed journal box is shown in an accompanying illustration. Except for the housing around the fan, all essential parts of the box conform to A. A. R. standards. As a protection against end wear and failures at the wedge stop lug, a 100 per cent increase in thrust

(Continued on page 727)



# Motor Transport Section



New Buses that Serve the Bay Line Passengers

## Short Line Blazes Service Trails

Atlanta and St. Andrews Bay, by alert anticipation of customers' needs, secures additional traffic

**T**HE Atlanta & St. Andrews Bay is a short line, operating between Dothan, Ala., and Panama City, Fla., 81 miles, through relatively thin traffic territory; yet through intelligent recognition of its possibilities for service, it has increased its freight and passenger traffic appreciably in the last six years. Also, by means of rail-highway co-ordination, it has extended this service into previously undeveloped territory. "The Bay Line," as it is known throughout the Southeast, has attracted this additional traffic largely by meeting or excelling the service of competing agencies of transportation and only a negligible part of the new traffic has been taken from other railways. In the last year, a number of defense projects have been located in the territory it serves, and the Bay Line has been ready, even before they began operating on the increased scale, to supply them with the type of transportation they needed and wanted.

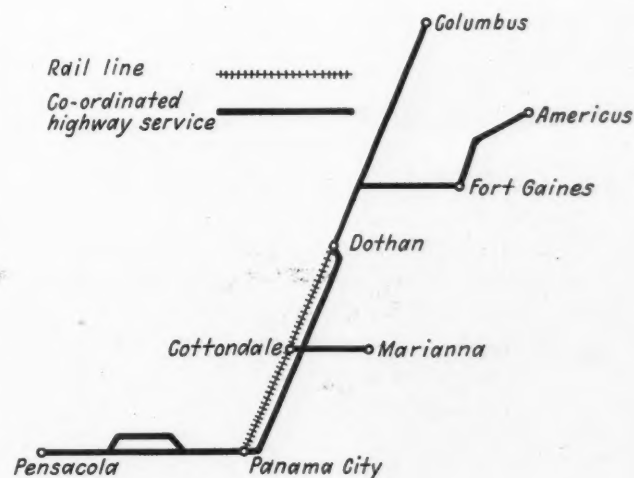
The Bay Line has a definite program for improving the sales efforts of its employees, and while its solicitation force is comparatively small, it is well trained and backed by excellent service. One off-line agency is maintained, at Atlanta, Ga., in charge of a general agent.

The management believes in maintaining its equipment, buildings and right-of-way in first-class condition, not only in recognition of the necessity of having first-class equipment to run a good railroad, but also for the effect of neatness on the morale of its employees and its further effect in impressing prospective customers that the A. & St. A. B. is a first-class railway. All equipment and buildings are well-maintained and neatly painted, and the Bay Line is practically alone among the

short lines of the Southeast in having ballasted track. Its ballast program, which is now nearing completion, is being financed from current earnings.

### Getting Passengers

Panama City, the port which is the southern terminus of the Bay Line, has a population of just over 5,000. To serve this community from Dothan, the Bay Line operates one train and three bus schedules in each direction daily. The buses are operated by the St. Andrews Bay



The Bay Line Has an Efficient Co-Ordinated Service

Transportation Company, a member of the National Trailways System, and a wholly-owned subsidiary of the railway.

To the west of Panama City, a stretch of excellent beach extends for nearly 100 miles to Pensacola, but this was entirely undeveloped and not served by any railway until a hard-surface highway was built between Panama City and Pensacola a few years ago. The Bay Line secured bus-operating rights over this highway and extended its schedules to include this section. At the same time, the growth of this territory as a summer resort was fostered, with the result that the once-deserted beach is now dotted with summer homes and several small communities have sprung up. Eglin field, an airplane base at Valpariso, Fla., is also served by this route.

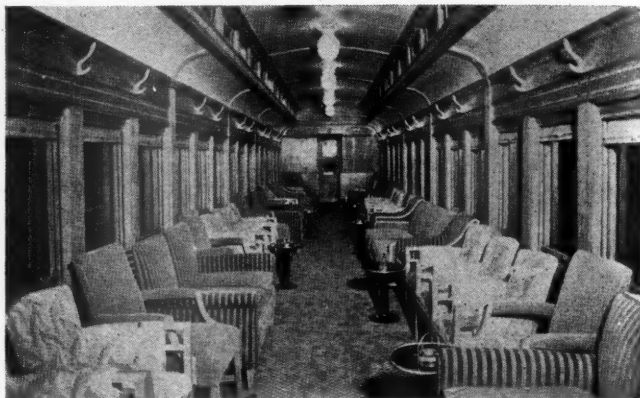
The Bay Line not only affords bus transportation to this beach section, but, on week-ends and holidays throughout the summer, operates a special beach train between Dothan and Panama City, connecting with the buses. The exteriors of the cars and locomotives of this train are brightly painted in the Bay Line colors of aluminum and blue. The coaches are air-conditioned and club facilities are afforded in an attractive living-room car. Tickets are interchangeable between buses and trains.

Until recently, the trip from Atlanta and other central Georgia points to Dothan and Panama City was inconvenient and consumed much time. However, the Bay Line has extended its bus routes within the past year from Dothan northeast to Americus, Ga., 130 miles, where close connections are made with railroad and bus schedules of other companies from Atlanta, Macon, Savannah and intermediate points. The Bay Line now operates three through schedules in each direction daily between Americus and Dothan, one of which extends through to Cottondale, Fla., and two to Panama City. One through schedule in the winter and two in the summer are also operated between Dothan and Pensacola, via Panama City. The important town of Marianna, nine miles east of Cottondale, is served by some of the through schedules and also by local schedules to Cottondale.

These schedules, involving nearly 1,600 bus route miles daily, are protected with nine 20-passenger capacity buses, with two more scheduled for delivery in May. The equipment is all modern, with aluminum and blue exteriors and walnut interior finish. All the buses are named for towns along the route to promote local interest.

The railway serves important industries at Panama

City, including paper mills and a marine terminal used by several oil companies. There is also a considerable import movement through the port, including a sizeable tonnage of fertilizer base from Chile. Carloads of lumber, agricultural products, etc., also originate at other points along the line, and there is an important intermediate interchange with the Louisville & Nashville at Cottondale, Fla. Therefore, the carload movement is quite heavy, and, in order to avoid stopping through trains, a rail-highway co-ordinated service was set up for the handling of merchandise freight. L. C. L. traffic



The Air-Conditioned Club Car Operated on the Beach Special

is loaded to concentration and distribution points at Dothan, Cottondale and Panama City. This enables the freight trains to pick up and deliver carloads only at all other points. The daily freight train, leaving Dothan in the morning, ordinarily makes only one stop on the 81-mile run to Panama City. This stop is at Cottondale to pick up and deliver the L. & N. interchange. The train makes the return trip the same day. Carload traffic for local points is handled by a local train which operates northbound one day and southbound the next, picking up and delivering cars at the local stations en route.

### Freighthouses Always Open

The Bay Line, by staggering its forces, has made arrangements so that a receiver may get his shipments from the freighthouses at any hour of the day or night,



Powerful, Modern Highway Freight Equipment Is Used



a service that is appreciated by customers. The A. & St. A. B. is one of few, if not the only, railways in this country giving such service.

In pursuance of its policy of attracting traffic through fine service, the Bay Line has extended its truck lines beyond the limits of its own rails. The Chattahoochee Valley, a peanut and cotton-growing area over 100 miles in extent between Dothan and Columbus, Ga., is without north-south railway service, and the Bay Line now operates a 113-mile truck line in this area, which connects, of course, with the Dothan-Panama City trucks at Dothan.

Beyond the south end of the railway, in previously undeveloped territory, truck routes are operated between Panama City and Pensacola, 103 miles via the direct ocean highway and 123 miles via the alternate route along the north shore of Choctawhatchee Bay, on which the Eglin air base is located.

Thus, this 81-mile railway has established continuous truck routes between Columbus, Ga., and Pensacola, Fla., more than 300 miles long, and continuous bus routes between Americus, Ga., and Pensacola, also over 300 miles. To handle the highway freight business, 5 tractors, 5 trailers, 3 van type trucks, and 1 truck equipped for handling mail and express are employed. These trucks also handle all pick-up and delivery service except at Dothan, Ala., where a contract trucker is employed. Both passenger and freight equipment are serviced at the modern garage and shops of the transportation company at Dothan, Ala.

## Milwaukee Seeks O.K.

**T**HE Chicago, Milwaukee, St. Paul & Pacific has asked authority to establish a rail-highway coordinated system in Wisconsin and upper Michigan. If approved, this will enable the Milwaukee to give first morning delivery from Chicago and Milwaukee to points as far north as Iron River, Mich., and will represent a marked improvement in merchandise service in the entire area affected. A wholly-owned subsidiary with

a capitalization of \$50,000 is to be set up to handle the trucking operations and Green Bay, Wis., and Plymouth have been selected as the principal concentration and distribution points.

## M. P. Buys Diesel Buses

**T**HE recent delivery of six new buses marks the entry of the Missouri Pacific Trailways into the Diesel-powered field. These G. M. C. units are of 37-passenger capacity, air-conditioned, and will be operated on schedules in Louisiana. The bodies are all-metal, steel and aluminum, streamlined, with unusually fine interior finish and decorations. All seats face forward, 16 being double reclining seats, with a five-passenger reclining lounge seat at the rear of the bus. This brings the total of M. P. Trailways equipment to 148 buses.

## Journal Boxes with Dust-Deflecting Fans

(Continued from page 724)

area, over that in the present A. A. R. axle, is obtained by the thrust-ring part of the fan. The wheels can be turned without removing the fan from the axle and the box can be jacked for the removal of the wedge and bearing in the usual manner. For existing boxes, fan housings can be furnished separately for application by welding.

The National waste-packed journal box has the Flexo A. A. R. lid using a double coil spring of large diameter and moderate wire size. This spring produces sufficient pressure at the center of the lid to hold it tight against the face of the box regardless of the condition of the hinge lug. Serrations are cast on the inner face of the lid where it contacts the box. In service, these wear slightly into the box face or into high spots and help to make more efficient the oil- and dust-tight joint between the lid and box faces.

\* \* \* \*



Photo by "Sparky"

The Instrument Board on Southern Pacific's Dynamometer Car No. 137 Keeps the Boys Attentive

# Communications and Books . . .

## Opposition by Unions To St. Lawrence Project

WASHINGTON, D. C.

TO THE EDITOR:

On page 31 of the April 12, 1941, issue of the *Railway Age*, you comment upon "Transport Infirmary" and state, "half-hearted opposition to such economically-cancerous ventures as the St. Lawrence and super-highways."

I doubt that there is much wisdom in a comment of this kind upon your part, considering the sincerity of purpose to which I have resorted when opposing legislation at Washington detrimental to the railroad industry.

On April 2, this year, I thought that I most strenuously opposed the Tombigbee Canalization Project and on the same date, also vigorously opposed the Southeastern Pipeline Project. Representatives of the Association of American Railroads, including Assistant Counsel J. Carter Fort, and Economist Julius Parmelee, were present and if they agree with what you call "half-hearted opposition" as presented by the undersigned, then it is high time that it be made known to me so that further effort to help the railroad industry, as well as the employees, is a needless undertaking.

Tomorrow, or on April 15, I will appear in opposition to the St. Lawrence Waterway in behalf of the Railway Labor Executives' Association and also you may consider it a weak argument. I am, nevertheless, furnishing you with a copy so that you may again pass judgment as to whether or not it is "half-hearted opposition."

Personally, I do not think that some of your unfavorable comment, without real cause, adds to the spirit of cooperation. It goes without saying that when I am asked to represent the employees in behalf of all of these organizations, it is based upon the realization that our opposition has for its purpose retaining all business possible on the rails and every opposition to projects taking away business from the rails automatically benefits the railroads.

In my life's experience, even though conflicting views maintain at times, when a sound position is taken in a cooperative way helpful to both interests, it is better to laud such purpose than to criticize all of them, regardless of all sincere intent.

J. G. LUHRSEN  
Executive Secretary, Railway Labor  
Executives' Association

[A report of Mr. Luhrsen's forceful and able address, delivered in Philadelphia on April 15, appears in the news pages herein. In the editorial pages we discuss the adequacy of the opposition being offered by the railway labor organizations to such projects as the St. Lawrence Seaway.—EDITOR]

## Employees and Management Should Pull Together

BUFFALO, N. Y.

TO THE EDITOR:

While it is not my intention to indulge in any controversy or to attempt to analyze the vote in the Presidential election of last fall, I cannot refrain from commenting upon your remarks, appearing at the bottom of my letter, in your April 12 issue.

In the first place, the election is over and the result should be accepted in the customary American spirit. Perhaps, I did not like the result, but no useful purpose can be served by continuing the campaign.

I think you are too critical of how railroad labor voted last fall. I did not vote for Mr. Roosevelt, but I can understand why some railroad men did. It is true that it was known that the President favored the Seaway, yet that was not the only

issue in the campaign. There were very many complex issues involved. It was a question of weighing up the good points against the bad, and if any railroad man came to the conclusion that the good outweighed the bad, I believe that conclusion was sincere, and was arrived at after a consideration of all the issues and considerations involved.

What did Mr. Willkie say, if anything, about the Seaway? He agreed with the President on almost everything. His "me too" attitude left very little choice. He took the position that the other fellow was doing a fairly good job, but Willkie could do it better. He approved the T. V. A., thereby agreeing with the public development of power resources. From that approval it could logically be inferred that he might approve the Seaway, because of its power features.

The general public feeling and attitude, that it doesn't make very much difference who is elected to public office, was more justifiable last fall than ever before. I asked a prominent leader who he intended to vote for and he replied, very aptly, if ungrammatically, "Well, Roosevelt or Willkie, it makes the same difference."

Moreover, I think you will agree that the absence of a defined, understandable, clear-cut issue, was more apparent last fall than ever before. I do hope you will stop chastising railroad labor for the way it voted last fall. Now is the time for railroad labor and management to work together, to fight the evils of unregulated and subsidized competition, and to inform the public that "For Better Times" there is need for "A Square Deal in Transportation." Railroad labor and management have many problems in common, which should be worked out jointly, for the common good of all. These are the things which should engage our attention.

Let us hope that our attention to the problems of the day will not be diverted by bickering over the political past. In this way we may look to the future with more hope.

CHRISTY A. BUSCAGLIA  
Counsel, R. R. Workers Protective  
League of Western N. Y.

[Our purpose in mentioning last fall's election in the comment to which Mr. Buscaglia makes such persuasive objection was merely to emphasize the important point that the route to a politician's understanding is via the ballot box. We entertain no doubts as to the serious intention of Mr. Buscaglia and his associates to do their best to protect railroad traffic and employment in every legitimate way. We wish them every success and shall gladly co-operate with them in any way that we can.—EDITOR.]

## New Book

*Proceedings Association of American Railroads, Mechanical Division. Published by the association, 59 E. Van Buren street, Chicago. 508 pages. Price, to members, \$4; to non-members, \$8.*

The proceedings of the annual meeting held in Chicago, June 27 and 28, 1940, contain the reports of committees and discussion presented at that meeting, and the recommendations of committees submitted to letter ballot of the members by authority of the General Committee. The volume also includes a summary of the report of the New York Central draft-gear recoil tests which were presented with the report of the Committee on Couplers and Draft Gears and a report on intercrystalline cracks in locomotive boilers which is based on an investigation of this subject supported jointly by the Association of American Railroads, the American Society of Mechanical Engineers, the American Society for Testing Materials, the American Boiler Manufacturers' Association, and a number of other associations and interested groups. Recorded also are the results of the letter ballots taken on the recommendations of the various committees; the officers of the association; the personnel of the various committees of the Mechanical Division, and the representatives at the 1940 meeting.



# NEWS

## Issues Indexes of Coal Rates

I. C. C. gives out, without approval, compilation showing average rate up 2% over '29

The net effect of all post-1928 changes in railroad rates on bituminous coal was to leave such rates 2.2 per cent higher on August 1, 1940, than on January 1, 1929, according to a comprehensive study made public last week by the Bureau of Statistics of the Interstate Commerce Commission. The study, issued as information, "has not been considered or adopted by the Interstate Commerce Commission;" it was made by Thor Hultgren, economist and statistical analyst, assisted by Sam G. Spal, junior statistician.

The study occupies 132 mimeographed sheets, and embodies a detailed survey of the bituminous rate structure and the changes in such rates over the past 12 years. And, the introductory comment says, "in view of the importance of the coal rates, it amounts to a description and history of a substantial part of the entire freight rate structure of the country." Index numbers on the basis of January 1, 1929, rates as 100 are developed for bituminous rates as a whole and for each of the seven principal classifications of rates selected for the study. The seven classifications are: Appalachian—tidewater; Appalachian—eastbound, other than tidewater; Appalachian—southbound; Appalachian—lake cargo; Appalachian—westbound, other than lake cargo; Illinois-Indiana and Western Kentucky; Western.

The object of the general index and sub-indexes, the study says, "is to show the weighted average changes in rates which have occurred since January 1, 1929." For the purpose of the index numbers a selected group of 195 key rates was chosen; these, "it is believed . . . adequately reflect the level and fluctuations in the level of all rates on bituminous coal since January 1, 1929." Also, the construction of the indexes involved the use of the volume of coal moving in 1929 to weight the representative rates. These and other statistical methods employed are explained in more detail in the study's text which includes also specific comment on each of the above-listed seven principal classifications of rates.

A table giving the composite index numbers for all coal shows that the index number rose from 100 on January 1, 1929, to 102.2 on January 4, 1932, and then hovered between that point and 101.5 until October

1, 1933, when it was down to 99.1. It got as low as 98.8 by September 4, 1934, but was up again to 104.2 by April 18, 1935. Then it remained at 104 plus until July 1, 1936, when it was down to 102.6. The downward trend continued to produce a 98.6 for January 1, 1937, and a 98.7 for September 1, 1937. A couple of months later on November 15, 1937, the index was up again to 102.4 and it thereafter remained at 102 plus, the final figure shown being the aforementioned 102.2 for August 1, 1940.

Another table setting forth the index numbers by movements on selected dates shows that the Appalachian—tidewater index reached a high of 105.4 on April 18, 1935, and was 102.3 on August 1, 1940. The Appalachian—eastbound index never got above 102.4, and it was 101.4 on August 1, 1940; the high for Appalachian—southbound was April 18, 1935's 107.3, the August 1, 1940, figure 105.6. On April 18, 1935, the Appalachian—lake cargo index was also at its high (108.6) while the August 1, 1940, figure was 105.4. The Appalachian—westbound high, also on April 18, 1935, was 105.4, while the August 1, 1940, figure was 104. Illinois-Indiana and Western Kentucky rates were up to 103.8 on April 18, 1935, and at 102.2 on August 1, 1940. The Western high was 101.5 on January 4, 1932, while its August 1, 1940, index was 91.5.

### Urges Federal-Aid Equipment Modernization Program

Senator Mead, Democrat of New York, has sent to President Roosevelt a letter urging that consideration be given to a federal-aid program for the modernization of railroad equipment.

### Tariff Simplification

The Committee on Freight Tariffs of the Association of American Railroads has issued Supplement No. 1 to Tariff Circular A. A. R. No. 4 setting forth additional and revised tariff-simplification recommendations for the guidance of tariff publishing agents and rate associations. The circular dated April 1 was issued by W. J. Kelly, chairman of the committee.

### Bills in Congress

Representative Rankin, Democrat of Mississippi, has introduced H.R. 4444, a bill "to promote the national defense by providing . . . a high-speed mid-western north-south highway, to be known as the Lakes-to-Gulf Highway."

Representative Wene, Democrat of New Jersey, has introduced H.R. 4424 to provide for the construction of a canal from Cape May Harbor to Delaware Bay.

## Carriers Want No More of Richards

Labor lawyer sees no harm done if referee has "intellectual predilection" his way

Oral argument was heard by the National Mediation Board in Washington, D. C., April 18 on the protest filed by carrier members of the First and Third divisions of the National Railroad Adjustment Board against the designation of Paul W. Richards as referee to sit with the latter Board on deadlocked cases. The case, wherein it is alleged that Judge Richards, a former justice of the Supreme Court of Iowa, "is not a neutral person and therefore disqualified to serve as referee," marks the first time that such a protest has been before the Mediation Board in a formal proceeding.

It arose when Judge Richards, who participated as referee in the disposition of 97 cases over a period beginning April 29, 1940, and ending February 13, 1941, was recently designated again to sit with the Third Division on 21 deadlocked cases. Generally, the protesting carrier members are asking the Mediation Board to find evidence of the designee's alleged lack of neutrality in his performance on the aforementioned cases; while the employee members of the First and Third divisions and the Railway Labor Executives' Association are seeking a Mediation-Board order dismissing the protest and charges. The employee members and R. L. E. A. were represented by Frank L. Mulholland of Mulholland, Robie & McEwen, Toledo, Ohio, while the protestants were represented by James F. Oates, Jr., of Sidley, McPherson, Austin & Burgess, Chicago, and Sydney R. Prince, Jr., permanent counsel to the carrier members of the First Division.

Supporting his motion to dismiss, Mr. Mulholland's argument ran generally to a contention that the allegations of protestants did not show partiality or bias of a "personal" nature, depending for its existence upon the identity of the litigants; and thus the specifications in the protest did not comprise a basis for disqualifying the appointee under court-procedure precedents bearing on the matter. As Mr. Mulholland summarized the general rule of the courts it holds that previous rulings of a judge, although erroneous, numerous and continuous, especially when subject to review, are not sufficient to disqualify him. Thus his contention that the Mediation Board has no power to measure the neu-

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## Rates Get Into Coal Wage Melee

F. D. R. thinks rates in South are high and Mme. Perkins is said to be ready to cut them

Inquiry at the Interstate Commerce Commission this week revealed that nothing was known there of a general investigation of southern freight rate differentials on bituminous coal which President Roosevelt had said at his press conference on April 18, that he understood was being undertaken by the commission in an attempt to mitigate the opposition of the southern coal operators to a settlement of the current soft coal strike in both the northern and southern fields.

At his Friday press conference the President told newspaper men that he felt that freight rate differentials operating against the south were unfair and he understood that the Interstate Commerce Commission was looking into the matter. The question of freight rate differentials was a burning question in the south, he said, and he personally believes that in many instances they operate unjustly against the southern area. He also pointed out that there are many ramifications to the rate question in its application to the coal situation and much depends on how one interprets statistics.

Following close on the heels of the President's comment came a statement from the Southern Coal Operators Wage Conference in Washington which declared that the "hardships imposed upon the coal industry by existing north-south freight rate differentials" comprise "one of the basic reasons why the Southern Operators cannot accede to the demands of northern coal operators and the United Mine Workers for abolition of the existing wage differentials."

"The Southern Coal Operators Wage Conference," continues the statement, "is delighted that the President of the United States has said to the Interstate Commerce Commission that in his opinion southern coal shippers are being discriminated against in freight rates. This is the contention that has been made by the southern coal shippers for the past 28 years. During this period the I. C. C., under pressure from the northern coal producers, the United Mine Workers of America and the northern financially controlled railroads, have increased these differentials to where they are from 200 to 400 per cent higher now than they were 28 years ago."

"These freight rate differentials average about four times as much against the southern operators as the wage differential operates in their favor. The northern operators have a monopoly in the territory where 75 per cent of their coal is sold, because the coal from the southern fields is absolutely barred by freight rates from most of the markets in the great consuming states of Pennsylvania, Delaware, New Jersey, New York and all of New England 50 miles from tidewater."

"On the other hand," concludes the statement, "the southern mines have to meet the competition of the northern mines in

### N. I. T. L. Protests Relating Motor Rates to Rail

Asserting its opposition to the "concerted action" whereby organized motor common carriers "are flaunting statutory principles and requirements" by seeking to establish their rates on the full rate basis maintained by the railroads, the National Industrial Traffic League has asked the Interstate Commerce Commission to suspend various tariffs issued to become effective April 29 by the Central States Motor Freight Bureau, Inc. The petition charges that the tariffs propose changes in rates and rules "to reflect as nearly as possible the charges and rules found in comparable tariffs of the railroads." Rather it asserts that the matters involved "are of national interest and importance," because "it is the obvious purpose of the organized motor carriers to relate arbitrarily their rates to the prevailing railroad level, completely ignoring the circumstances surrounding and affecting transportation by motor vehicle and denying to the public the inherent benefits of such transportation, contrary to the declaration of policy and the rate-making rules in the act."

the territory where 75 per cent of their coal is sold and in these markets the freight rate differential favors the north from 25 cents to \$1.25 a ton. This is one of the controlling reasons why the Southern Coal Operators Wage Conference has refused to accede to the combined demands of their northern competitors and John L. Lewis that the remaining wage differential be wiped out. They know it would be destructive to their business and destructive to the jobs of the major portion of the members of Mr. Lewis' union in the southern fields."

Meanwhile, debate on the soft coal tie-up flared up last week in the House when Representative Bradley, Republican of Michigan, told his colleagues that he understood that "Madame Perkins (the Secretary of Labor) assured the southern operators that if there was any question of wage differentials, she would sign any paper they wanted any time, and she would equalize the freight rates for them." The Congressional Record shows that laughter followed Mr. Bradley's final declaration: "So she is bigger than the Interstate Commerce Commission right now."

### Meetings on Vacations Demand Resumed

National Mediation Board meetings with labor and management representatives in connection with the demand of 14 non-operating unions for vacations with pay were resumed on April 21, but no information beyond the fact of the resumption was available at the Board's offices. The resumption came after a two-weeks recess which was taken by mutual agreement of the parties.

## Eastman Urges Transport Plan

Government as largest transport owner needs rational guidance of its activity

Speaking before the American Society of Civil Engineers at the Lord Baltimore Hotel in Baltimore on April 23, Chairman Joseph B. Eastman of the Interstate Commerce Commission again reiterated his previously-expressed views that there should be created a permanent transportation planning agency and a centralized railroad research bureau. At the same time Mr. Eastman noted with pleasure the introduction of beauty and grace of line in railroad equipment; felt that the carriers should concentrate more attention to beautifying small passenger stations; and suggested that labor-saving devices can best be introduced during periods of rising traffic when the displaced employees can be absorbed in other types of work.

Mr. Eastman told the engineers that because of the present competitive struggle in transportation and the great pace of mechanical development the transportation system of the country calls for an attention on the part of the government which will go beyond mere regulation in the sense in which the country has come to know it. Furthermore, he feels that there is need for a constructive leadership, guidance and planning from the point of view of the transportation system as a whole, and he knows of no source from which this leadership can be supplied except the federal government.

"Such an agency as I am now suggesting," he continued, "which might or might not take the form of a Department of Transportation, would be divorced from regulation of the kind which requires the determination of issues through quasi-judicial procedure, and would instead be what has been called a planning and promotional body. It would issue no orders, but it would be in constant touch with the transportation situation, watching developments, noting trends, discovering opportunities for improvement, and foreseeing dangers ahead. Its influence would be exerted through voluntary cooperation and advice—to the carriers, to their employees, to shippers, and to all concerned in transportation, and also to the President and Congress, if further legislation should be deemed necessary. It might further be given immediate direction of all government activities, outside the field of regulation, which have to do with transportation. It may be that the new but temporary board of investigation and research for which the Transportation Act of 1940 provides, will lead into the creation of some such permanent agency."

Taking as his subject "The Transportation of Tomorrow," Mr. Eastman permitted himself to do a little prophesying as to what improvements may be made in the various forms of transportation in the years to come. As far as the airplane is concerned, he feels that "it is a safe bet that as a means of carrying passengers it

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## Pay for Widows Will Cost Money

Latimer tells Luhrsens how much and defends operating costs of Pension Board

Murray W. Latimer, chairman of the Railroad Retirement Board, in a recent letter to J. G. Luhrsens, executive secretary of the Railway Labor Executives Association, defended the Board's administrative expenses and warned that any liberalization of benefits under the Railroad Retirement Act must contemplate increased payroll taxes which are paid half by the railroads and half by the employees. Mr. Latimer's letter embodied a comprehensive description of the Board's activities; it was written after Mr. Luhrsens had forwarded to him a letter which the labor leader had received from a representative of the Retired Railway Employees of America, Inc.

Dealing first with proposals to liberalize benefits, Mr. Latimer noted that the letter forwarded to him by Mr. Luhrsens had indicated an interest on the part of retired railroad men in making provision for widows of deceased annuitants. After pointing out that it is now possible to provide a survivor annuity by reducing the annuity received by the retiring employee, Mr. Latimer went on to address himself to what he took to be the objective of Mr. Luhrsens's correspondent, i.e., "the provision of an annuity in addition to the annuity to be received by the retired employee."

The main problem in the latter connection, Mr. Latimer said, "is one of cost"; and "the costs involved in providing even narrowly restricted benefits are quite substantial." He estimated that to provide for widows of annuitants benefits equal to half that received by the husbands would cost about \$33,000,000 a year; to provide each widow of an annuitant \$50 a month would cost about \$44,000,000 a year; to provide, but not prior to attainment of age 65, widows of annuitants with an annuity of half the amounts received by their husbands and to give widows of employees who die before coming annuitants, annuities equal to half the credits earned by the husbands prior to the date of death, would cost about \$55,000,000 a year. "Any practical discussion of the problem of providing widows' benefits," Mr. Latimer said, "must deal with the problem of securing, annually, sums in the magnitude just quoted."

The Retirement Board chairman then turned to the Luhrsens correspondent's protest "against what he regards as the unduly high administrative expenses now being incurred by the Board." And before he completed his answer to that charge, Mr. Latimer had written 15 single-spaced sheets. The Board's functions, Mr. Latimer said, "are quite similar to those conducted by a large insurance company"; and he thought it significant to note that there are only four life insurance companies in the United States which disburse to their policyholders larger amounts than does the Board. "It is interesting, also," he went on, "to notice that the New York Life, which disbursed to its policyholders in 1939 about 40 per cent more than we will pay

out this year, had expenses of roughly nine times our current expenses under the Railroad Retirement Act. The Mutual Life Insurance Company, which disbursed in 1939 about 15 per cent less than is paid out in benefits under the Retirement Act, had expenses of more than five times as much as are those of this Board currently. These companies, moreover, are generally recognized as having relatively low costs."

But Mr. Latimer was not content to rest his defense of the Board's administrative expenses on the foregoing comparisons. He therefore proceeded to go into some detail with respect to the various tasks involved in administering the pension system and the costs of performing those tasks. He pointed out first of all that all administrative expenditures of the Board must pass the scrutiny of the Bureau of the Budget, a Congressional committee, and Congress itself. For the current fiscal year ending June 30, 1941, Congress has appropriated for the administration of the Railroad Retirement Act the sum of \$2,998,000, "a little less than 2.5 per cent of the annuity disbursements during the year." Mr. Latimer proceeded to break down that total to show what the Board is spending for each of a wide variety of its activities. The heaviest expenses in connection with the retirement system are those directly connected with the adjudication of claims. Among other items of expense Mr. Latimer mentioned the \$416 per day paid to the Treasury for writing and mailing checks to annuitants. "Some of us," he said, "have thought that this amount is rather large in comparison with the work to be done and that we could perform the function more cheaply than the Treasury." He conceded, however, that the Treasury's charge to the Board is not out of line with what it charges other agencies for doing similar work.

Concluding, Mr. Latimer pointed out that the Board gets some free services, such as the franking privilege and the handling of litigation by the Department of Justice. "Anyone who believes that the Board should spend less for administration than it does," he went on, "ought to point out to us where we can save."

### G. M. & O. Equips Buses with Radio As Sales Incentive

Radios which can be turned on or off at the will of the passengers, and which do not disturb other patrons, are being employed by the Gulf Transport Company, a subsidiary of the Gulf, Mobile & Ohio, to merchandise its Rebeliners or buses which it operates between New Albany, Miss., and Meridian. Public reaction to "a radio in each seat" is being tested by one bus which has been equipped with a master receiver and individual sets built into the head-rest of each seat.

These receivers "play so quietly" that programs from them cannot be heard further than six inches from the head-rest. Each passenger can turn his set to one of two programs by means of a dial. The two programs are tuned in by the driver through a pair of master sets located in the fore part of the bus. He keeps these sets tuned to the two strongest stations in the area through which the bus is operating.

## Urges Mergers For Transport

Conn believes fewer systems are best hope for avoiding socialism—Hits ditch

The integration of all forms of transportation into a limited number of competitive systems, each having legal sanction to render all types of service, was advocated by Donald D. Conn, executive vice-president of the Transportation Association of America at a meeting of the Western Railway Club at Chicago on April 21. A study of the effects of world conquests and a growing philosophy of government to take care of people, he said, has caused the association to revise its program so as to defy defeatism and preserve the democratic way of life.

His plan for co-ordination called for a limited number of competitive systems, each of which would embrace all of the present forms of transportation in order to give the public complete service. The association, he said, has not determined the number of systems that would be required. To further this "middle course" plan of regulated transportation, he advocated that it be relieved from the provisions of the Sherman Anti-Trust Act and that all legal impediments be lifted to permit voluntary co-ordination of all types of transport. In support of this plan to reduce the number of competitive companies, he contended that it is not in the public interest to maintain 144 Class I railroad systems, more than 500 short line railroads, 41,000 truck companies, 3,900 bus companies, 2,600 water lines and 24 air lines.

In addition to this plan of consolidation, the new program of the association, according to Mr. Conn, provides for a national policy against subsidizing some agencies of transportation to the disadvantage of others. He mentioned the government barge lines, the St. Lawrence waterway and other projects. It also provides for necessary changes in the Transportation act, a study of the economy of growing private transportation by producers, the determination of the total volume of all classes of traffic and a study of labor and its relations to economic operation.

Mr. Conn also discussed the St. Lawrence Waterway project, declaring that its proponents are misleading the public as to its total cost and fail to appreciate the proposal's economic influence upon industry, labor and the farmer. He also challenged the contentions of A. A. Berle, Jr., assistant secretary of state, contending that the project has no national defense significance whatever and is "just another Grand Coulee Dam for the Eastern part of the United States."

"This proposal to spend a billion dollars on a doubtful public work when the financial obligations of the American people now exceed 113 billion dollars, or more than \$3,400 for every family of four persons, indicates a complete lack of appreciation of the financial burdens of this country, regardless of the merits of the proposal itself," Mr. Conn said.

Mr. Conn emphasized that the project is

being opposed by the major labor groups throughout the country, by Eastern and Middle Western industry and by Western agriculture. Aside from a few ports on the Great Lakes which would selfishly benefit, over 90 per cent of the area of the country would be injuriously affected.

"Our Association," he continued, "opposes the construction of this channel not only because it will deprive existing transport agencies of sorely needed tonnage in the future but primarily because the construction of this waterway would disarrange our entire system of distribution in the Middle Western and Eastern States and will, as a matter of fact, hurt the Western farmer instead of helping him. It is entirely inconsistent with the so-called 'planned' program in agriculture.

"For the past several years, the return to the farmer has been measured by the judgment of the Department of Agriculture and not by world competition. What would happen to our domestic planning program if Argentine corn were imported into Chicago at the world price of 32 cents when we were loaning 57 cents on the farm in Iowa; or if Danish dairy products reached Milwaukee at prices reflecting foreign living standards, at ballast rates, on boats manned by foreign labor? No tariff wall could be sufficiently flexible to stop ruinous competition from the outside world.

"Mr. Berle says that American industry is short of power now. If so, where? I challenge him to name the firm and location; also to say if he can, how any present shortage could be overcome by a project which, in the very terms of the agreement, will not be completed until December 31, 1948."

#### Get-Together Sales Meeting To Be Held April 28

The sixth annual get-together sales meeting of railroad passenger representatives in Chicago will be held at the Palmer House on April 28 under the auspices of the Central and Western Passenger Associations. Phil Hanna, editor of the Chicago Journal of Commerce will be the principal speaker. In addition to Mr. Hanna's address there will be other educational features that will assist passenger representation in the selling of railroad tickets.

#### Bill to Require Free Uniforms for Passenger Service Employees

Representative Lesinski, Democrat of Michigan, has introduced H.R. 4389 to require railroads to "provide and maintain three articles of clothing, a uniform, and a hat or cap and distinguishing badge, to be worn by all employees whose duties relate to the immediate transportation of passengers, their sleeping accommodations, their food service and their baggage." It is stipulated that provisions of the bill "shall not apply to engineers and firemen."

#### Wayne Coy Gets Another Job; Will Withdraw From Transport Board

Wayne Coy, nominee for the Transport-Study Board called for in the Transportation Act of 1940, has been named by President Roosevelt as head of the Office for Emergency Management, and he has requested that his nomination for the Study

Board be withdrawn. O. E. M., now headed by William H. McReynolds, administrative assistant to the president, is the top agency in the national defense set-up.

Nominations for the Transport-Study Board have been pending before the Senate Committee on Interstate Commerce for more than a month. In addition to Mr. Coy, who had been designated as chairman, the nominees are Charles West and Nelson Lee Smith. As noted in last week's issue, Southern senators have been promoting delay of the committee's consideration of the nominations in the hope that something might happen which would pave the way for the naming of a Southerner to the board. They may be expected to urge the president to make such an appointment now that Mr. Coy has withdrawn.

#### Kendall Calls for Ideas to Promote Efficient Use of Equipment

Calling attention to ideas for the promotion of more efficient utilization of equipment which are being used by the Missouri Pacific and the Texas & Pacific, W. C. Kendall, chairman of the Car Service Division, said in an April 21 circular that the Division would appreciate hearing of similar activities of other railroads.

The Missouri Pacific idea is a post card distributed to industries located on its lines to indicate cooperative action which may be taken by shippers and receivers of freight to aid in successful progression of the national defense program. The Texas & Pacific has distributed to its yards and stations a poster which embodies a pledge on the part of T. & P. employees to "observe car service rules as never before." Then comes a list of specific actions whereby the pledge will be kept.

#### "James Whitcomb Riley" Makes Initial Run

The "James Whitcomb Riley," which the Cleveland, Cincinnati, Chicago & St. Louis will place in operation between Cincinnati, Ohio and Chicago on April 28, made a preliminary run from Chicago to Cincinnati and return on April 18, carrying officers of the railroad and representatives of the press. As reported in the *Railway Age* of March 29, the new train will operate on a schedule of 5½ hr. for the 303 miles, making a round trip each day. The train was exhibited at Indianapolis, Ind., on April 21, La Fayette, Ind., and Kankakee, Ill., on April 22, Chicago on April 23 and Cincinnati on April 24.

#### Corn King Limited Speeded Up

The Chicago & North Western will reduce the running time of its Corn King Limited 25 min. or to 9½ hr. between Omaha, Neb., and Chicago, on April 27. Service from Sioux City, Iowa, carried on this train, will be shortened correspondingly, or to 10 hr. 25 min. The train will leave Omaha at 10:05 p. m. as at present and will arrive in Chicago at 7:25 a. m., instead of 7:50 a. m. This change follows a 1½-hr. reduction in time made in February.

#### Proposed Federal Tax on Passenger Transportation

Treasury proposals for new taxes submitted this week to the House Committee on ways and means embody a suggested five per cent tax on amounts paid for passenger transportation. The estimated annual yield from such a tax is put at \$37,600,000.

Among other proposals is that involving an increase of one cent (from 1½ cents to 2½ cents) per gallon in the federal excise tax on gasoline. The estimated yield from that was put at \$255,000,000.

#### Refuses to Merge Southern-Ratings Case into General Probes

The Interstate Commerce Commission has denied petitions asking that it dismiss or consolidate with the pending general rate and classification investigations those proceedings involving the reduced rail and motor ratings in Southern Territory. The proceedings are No. 28550 and No. MC-C-210, and the denied petitions were filed by



The Seven-Car Streamlined Stainless Steel James Whitcomb Riley Will Operate on a Schedule of 5½ Hr. for the 303 Miles Between Cincinnati, Ohio, and Chicago



the Southeastern Association of Railroad & Utilities Commissioners; Atlanta Freight Bureau; Southern Traffic League; North Carolina Traffic League; and Nashville Freight Bureau.

### Status of Hudson Terminal Elevator Operators

Acting upon petitions filed by the Hudson & Manhattan and the Building Service Employees International Union, the Interstate Commerce Commission has reopened for further consideration the case involving the status of persons employed by the H. & M. as elevator operators, elevator starters and information clerks in the Hudson Terminal buildings, 30 and 50 Church street, New York. Division 3's decision in the proceeding found that commission orders defining and classifying employees and subordinate officials of common carriers included the employees involved, thus bringing them under the Railway Labor Act.

### St. Lawrence Seaway

President Roosevelt said at his April 22 press conference that legislation designed to make effective the United States-Canadian-St. Lawrence agreement was not yet ready for introduction in Congress. He also revealed that his recent discussions with Prime Minister Mackenzie King of Canada have included talk about the proposed St. Lawrence development.

The seaway proposal was debated over the radio on April 20 when the principal talk on behalf of proponents was made by A. A. Berle, Jr., assistant secretary of state; and on behalf of opponents by Judge R. V. Fletcher, vice-president and general counsel of the Association of American Railroads. Also, the debate in the form of statements printed in the Congressional Record has continued.

### Southern States Defend "Jim Crow" Laws

The attorneys general of all the southern states have filed a brief with the United States Supreme Court in the case of Mitchell versus the United States in which they urge the Court to avoid a ruling on the constitutionality of state "Jim Crow" or race segregation laws as applied to Negroes traveling on interstate trains.

It is the contention of the attorneys general that such laws are valid, but they believe that that issue is not properly before the Court in the instant case in which Negro Representative Arthur W. Mitchell of Illinois is seeking to force the Interstate Commerce Commission to order equal first class Pullman facilities on interstate trains in the south.

### Step-Modulated Air-Conditioning System Demonstrated

A new type of air-conditioning equipment was given a test run for a group of railroad men at the Dayton, Ohio, plant of the Chrysler Corporation, Airtemp Division, on April 18. The system, which is known as the "Lundy Continuous Control System" is being marketed to the railroads by E. A. Lundy, Inc., New York, N. Y. It employs a two-stage evaporator and a

## Lord Stamp Killed in London Air Attack

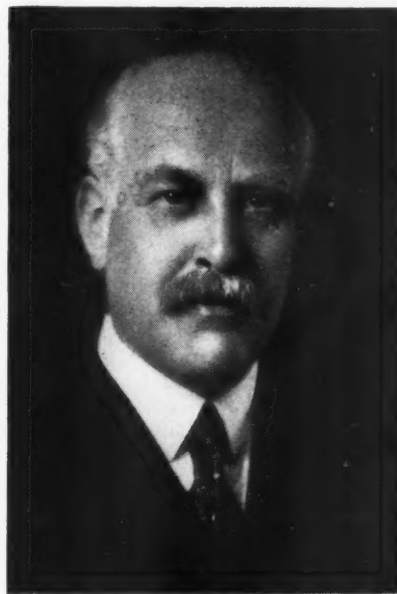
Nazi bombers, in their severe raid on the civilian population of London on the night of April 16, caused the death of the world's best known railroad man. Lord (Josiah) Stamp, G. C. B., G. B. E., chairman and president of the executive committee of the London Midland & Scottish, chief economic adviser on financial policy to the British Government, and internationally-known economist, was killed instantly at his suburban home in Kent, together with Lady Stamp and his eldest son. He was 60 years old.

Lord Stamp's career belies the oft-repeated assertion of politicians that, either in England or here, there is an "underprivileged class" which is denied opportunity for advancement. He began his career at the age of 16 as a minor civil service clerk in 1896 and remained in government tax work until 1919. But while working in musty government offices he translated his duties into scientific inquiry. Enrolling in London University he studied in his spare hours, winning his bachelor degree in 1911 and his doctorate in 1916.

His scholarship and sagacity eventually won him recognition in industry, banking, government and scholastic circles. During the war he was chief financial adviser to the Prime Minister; in 1922 he was knighted for his services on income tax problems; and he represented Great Britain in drafting the Dawes and Young Plans in 1924 and 1929, respectively. In 1938 he was raised to the peerage.

Lord Stamp will be remembered in railroad circles chiefly for introducing into the industry the scholar's approach to its problems. Becoming head of the L. M. S. in 1925, he shortly set about questioning every method and practice of administration, with respect not only to physical plant but rates, service and personnel as well—to determine to what extent prevailing practices were truly scientific and, to what extent, perhaps, they might be continuing "because we have always done it that way."

In 1930 he established a new office of vice-president and director of research, together with an advisory committee of technical officers of the road and outside scientists. This department made over 8,000 routine tests alone the first year of its existence. In 1936, the road



Lord Stamp

built a complete research laboratory at Derby to house testing facilities for the principal materials used by the road, particularly metals, woods, paints, varnishes and textiles.

In the same year the L. M. S. inaugurated a series of free evening classes for its employees and in 1937, Lord Stamp dedicated Britain's first "School of Transport" for L. M. S. railroaders at Omaston Park, Derby; designed to give courses to 50 resident students a year and short "refresher" courses to numerous non-resident men—a sort of staff college for railroad officers, similar to the "War College" of the U. S. Army, to prevent them from losing track of advancements in their profession and from becoming too set in routine habits. In his address on the occasion, the L. M. S. chief declared, "Learning teaches more in a year than experience in twenty." When the school was opened in July, 1938, Minister of Transport Leslie Burgin remarked: "That management should be invested with the dignity of a science is a sign of the times. The science of management of one of the great main line railroad systems is now especially to be taught."

Chrysler Airtemp, three-cylinder, radial compressor which may be unloaded automatically, one cylinder at a time, to effect step-modulated control. This avoids on-and-off cycling and prevents wide swings in humidity. The test showed the system to develop seven tons capacity at the speeds which will be employed in railroad car application.

Those witnessing the test were: F. Fahland, mechanical engineer, Union Pacific; A. L. Kelly, air conditioning supervisor,

Missouri Pacific; G. T. Wilson, air conditioning engineer, New York Central; M. A. Pinney, assistant electrical engineer, Pennsylvania; W. L. Hill, supervisor, air conditioning equipment, New York, New Haven & Hartford; E. A. Lundy, E. A. Lundy, Inc., and A. G. Oehler, editor, Railway Electrical Engineer. Representatives of the Airtemp Division, Chrysler Corporation, were: D. W. Russell, president; R. G. Wyld, vice president in charge engineering; C. R. Neeson, chief engineer

and designer; B. S. Williams, manager national accounts; C. P. Russell, chief engineer in charge of refrigeration, and R. L. Baldock, chief laboratory engineer.

### Susquehanna Rail Cars Bring Demand for Parking Space

For the second time since inauguration of frequent co-ordinated service by motor-rail cars and bus connection between Paterson, N. J., and Times Square, New York, in July, 1940, the New York, Susquehanna & Western finds it necessary to increase the size of the parking area for its patrons at the Paterson city station. Officers of the road declared that motorists from points substantially distant from Paterson have been attracted to use the service from New York to avoid tunnel and bridge tolls and parking fees, many of them coming from as far as Pennsylvania. Work has been started on converting additional land and the space was scheduled to be ready for use on April 20.

### Budd Hails Early Opening of Great Lakes Navigation

On April 10—"earlier than at any time in the history of lake transportation"—the Soo Canal was open for navigation and 90 per cent of the Great Lakes fleet of iron ore boats was in commission, according to a statement from Ralph Budd, transportation commissioner, Office for Emergency Management. The early opening, Mr. Budd said, was due to the "full cooperation of everyone in the lake transportation industry."

Two ore boats which left Escanaba, Mich., on April 5 were unloading at Cleveland on April 9; and "five ore boats have already been loaded at Marquette and four at Duluth." Mr. Budd pointed out that navigation as yet is necessarily slow because of floating fields of ice, but added that ice breakers are on the job.

### Coal and Steel Prices

While modifying the bituminous coal price schedule "to avert hardship for mines where work has been resumed under retroactive wage agreements during strike settlement negotiations," Leon Henderson, administrator of the Office of Price Administration and Civilian Supply, has also announced a price schedule "freezing" steel prices at the levels which prevailed during the first quarter of 1941.

The action in connection with the coal prices maintains the March 28 price ceiling for all coal above ground as of April 16; but it modifies the price schedule to permit the eligible sellers "to sign collateral agreements with purchasers." Mr. Henderson's action in connection with steel prices was precipitated by recent wage increases in the industry; but adjustments will be made if studies "indicate that they are necessary."

### Warehousing Situation

"A large supply of excellent warehouse storage space is available," the Transportation Division of the Office for Emergency Management announced this week. The statement was applied to both the merchandise and refrigerated divisions of the industry, while the question of providing grain storage to take care of the 1941 crop

"is receiving constant attention on the part of all government agencies and others concerned."

In the latter connection it was stated that "the problem of finding space for the new crop must be answered in some manner which will not involve utilization of freight cars for storage purposes." Ralph Budd, head of the Transportation Division is quoted to the effect that "Under present traffic conditions, any use of railroad equipment for purposes other than transportation must be prevented."

### Representation of Employees

Results of recent elections in representation-of-employees disputes on several railroads have been announced by the National Mediation Board.

Power house employees and railway shop laborers of the Texas & Pacific have voted to be represented by the International Brotherhood of Firemen, Oilers, Helpers, Round House and Railway Shop Laborers, operating through the Railway Employees Department, American Federation of Labor. Carmen (including coach cleaners), their helpers and apprentices on the Kentucky & Indiana Terminal have chosen the Brotherhood of Railway Carmen of America, operating through the Railway Employees Department, A. F. of L. Maintenance of way employees of the Pittsburgh, Chartiers & Youghiogheny have chosen the Brotherhood of Maintenance of Way Employees. Yardmasters of the Port Terminal Railroad Association, Houston, Tex., have chosen the Brotherhood of Railroad Trainmen.

### Motor Maximum Hours Cases Are Reopened

Division 5 of the Interstate Commerce Commission has reopened Ex Parte No. MC-2, Ex Parte No. MC-3, and Ex Parte No. MC-4 solely for the purpose of prescribing qualifications and maximum hours of service for mechanics, loaders, and drivers' helpers employed by common, contract, and private motor carriers subject to the Motor Carrier Act.

The three proceedings are assigned for hearing on a consolidated record, before Examiner R. W. Snow at the Hotel Sherman in Chicago, Illinois, on May 19. At the same time Bureau of Motor Carriers Director W. Y. Blanning has sent a letter to all interstate motor carriers enclosing a questionnaire which they may fill out and submit to the commission showing their practices regarding the above-mentioned employees. The letter states that the individual replies from the carriers will not be introduced into the record but tabulations compiled from them will be so introduced. The questionnaires must be returned by May 1.

### A. A. R. Watching Developments on Demand for Equipment

Commenting this week on published reports that the Car Service Division is conducting a new survey of equipment needs, officers of the Association of American Railroads stated that the Association is doing its usual job of keeping abreast of developments and advising member roads accordingly. With recent upward re-

visions of estimates of future carloadings, it is quite likely that the Car Service Division will bring up-to-date its findings as to equipment requirements, but it was emphasized that no special survey in that connection is yet under way.

M. J. Gormley, A. A. R. executive assistant, still adheres to his often-expressed view that the railroads will have no difficulty handling the traffic offered this year. Among other things he points out that on October 1 there will be in service 183,000 more freight cars than were in service October 1, 1939. These 183,000 cars, it is estimated, will handle 114,000 carloads a week or 5,928,000 carloads a year.

### SKF President Gets Gantt Medal

William L. Batt, president of SKF Industries, Inc., and deputy director, Production division, Office of Production Management, was awarded the 1940 Gantt Memorial Gold Medal at a dinner on April 22 in conjunction with a two-day management conference on national defense of the American Society of Mechanical Engineers in Philadelphia, Pa. The Gantt Gold Medal was established in 1929 and is awarded annually by a board made up of representatives of the A. S. M. E. and the Institute of Management. Mr. Batt was cited "for distinguished and liberal-minded leadership in the art, science and philosophy of industrial management in both private and public affairs."

Mr. Batt, in addition to his duties cited above, is chairman of the Business Advisory Council of the United States Department of Commerce; chairman of the division of engineering and industrial research of the National Research Council and chairman of the board of the American Management Association. He was president of the A. S. M. E. in 1936 and in 1938 acted as chairman of the executive committee of the Seventh International Management Conference in Washington, D. C.

### Traffic Clubs to Meet at Jacksonville, May 5-7

The Associated Traffic Clubs of America will hold its spring meeting at the George Washington Hotel, Jacksonville, Fla., on May 5, 6 and 7. The first day will be devoted to a meeting of the board of directors. On the second day, a general session in the morning will provide for the reading of papers prepared by representatives of member units, and the presentation of editorial awards and certificates of merit for outstanding traffic club educational work. In addition, Dr. Sidney L. Miller, professor of transportation of the University of Iowa, will speak on the Railways and Labor—What Price Peace?, and Bertram D. Tallamy, chief engineer of the Niagara Frontier Planning Board, will speak on the St. Lawrence—A Guard or a Disregard. Editors of club publications will hold their annual luncheon session at noon. The speaker at a dinner on the evening of the second day will be United States Senator Claude Pepper of Florida.

The program for the general session on the morning of the third day provides for



the making of cash awards to students in colleges and universities for themes or essays on transportation subjects and the reading of a number of papers, including the following: Selling Traffic Management, Joseph H. Donnell, manager, Tampa Traffic Association; Legal Aspects of a National Institute of Traffic Management to Formulate Educational Standards by Law in the Various States, L. P. Siddons, traffic manager, Holly Sugar Corporation, Colorado Springs, Colo.; and Regulation of Water Carriers under the Transportation Act of 1940, A. W. Vogtle, manager, sales and traffic, DeBardeleben Coal Corporation, Birmingham, Ala.

### Troops, Selectees and C. C. C. Men Transported in March

More troops, selectees and members of the Civilian Conservation Corps were moved by the railroads in March than during any other month since the national defense program began, according to the Military Transportation Section of the Association of American Railroads. During March, 327,188 of these men were transported by rail to all parts of the country. This was an increase of 120,110 over January of this year and 94,450 more than in February.

In addition to the 133,841 selectees taken from induction stations to reception centers in regular train service last month, the railroads carried 193,347 soldiers, sailors, marines and C. C. C. men in regular and special trains. Approximately 180,000 of these were handled in 619 special trains, all but 56 of which were required by the army alone. Highlighting last month's military transportation by rail was the carrying of a division of about 12,000 men a distance of more than 1,000 miles—the longest movement of an entire division since the emergency started.

The movement during March was accomplished satisfactorily and without any interference to commercial traffic, according to the A. A. R.

### R. I. Motor Transit Can't Buy Parent's Unused Truck Rights

Citing its decisions in similar previous cases, the Interstate Commerce Commission, Division 4, has dismissed an application of the Rock Island Motor Transit Company for authority to purchase unexercised rights of the Chicago, Rock Island & Pacific to operate trucking services over routes between Eldon, Iowa, and Trenton, Mo., between St. Joseph, Mo., and Hutchinson, Kans., and between Horton, Kans., and Fairbury, Nebr. The majority finding was that the unexercised rights did not constitute "property," the acquisition of which could be authorized under the Interstate Commerce Act's consolidation provisions.

Dismissal of the application, however, was without prejudice to the filing by the Transit Company of pleadings designed to grant it the authority in lieu of the railroad. All of which seemed to Dissenting Commissioner Porter a "rather dubious doctrine." He was impressed by the thought that the majority's suggestion that the Transit Company file different pleadings "is going a long way around to accom-

plish the same thing that will be accomplished by the mere approval of the instant application." From the majority report Mr. Porter presumes that "if the railroad went through the farce of saying operations were started and would actually run a truck over the route once a week, then there would be actual operation and the grant of authority would, by some hocus-pocus, become 'property.'" Mr. Porter noted that he also registered a dissent in the leading case relied upon by the majority, i. e., the Lavine Case, 35 M. C. C. 661.

### Freight Car Loading

Loading of revenue freight for the week ended April 19 totaled 708,651 cars the Association of American Railroads announced on April 24. This was an increase of 28,843 cars, or 4.2 per cent, over the previous week; an increase of 80,183 cars, or 12.8 per cent, over the same week in 1940; and an increase of 150,784 cars, or 27 per cent, above the comparable 1939 week.

As reported in last week's issue, the loadings for the previous week ended April 12, totaled 679,808 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading			
For Week Ended Saturday, April 12			
Districts	1941	1940	1939
Eastern .....	148,125	136,023	130,133
Allegheny .....	143,208	126,127	102,832
Pocahontas .....	17,544	43,912	13,349
Southern .....	107,636	100,329	89,753
Northwestern ..	109,456	73,265	70,343
Central Western	103,636	96,266	96,560
Southwestern ..	50,203	43,183	44,209
Total Western Districts ....	263,295	212,714	211,112
Total All Roads	679,808	619,105	547,179
Commodities			
Grain and grain products .....	33,696	31,196	30,928
Live stock .....	10,788	11,146	12,483
Coal .....	31,592	113,642	54,461
Coke .....	9,478	7,326	5,839
Forest products ..	39,282	31,174	28,008
Ore .....	45,951	12,539	11,259
Merchandise l.c.l.	161,667	148,301	154,139
Miscellaneous ..	347,354	263,781	250,062
April 12 .....	679,808	619,105	547,179
April 5 .....	683,402	602,835	534,952
March 29 .....	792,125	628,921	600,691
March 22 .....	768,508	620,375	601,948
March 15 .....	758,693	619,388	591,166
Cumulative Total, 15 Weeks ...	10,745,411	9,392,470	8,630,382

**In Canada.**—Carloadings for the week ended April 12, which contained a statutory holiday (Good Friday), totaled 54,974 as compared to 58,840 in the previous week and 50,348 in 1940 when no holiday occurred in this period. Totals are those of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
April 12, 1941 .....	54,974	28,216
April 5, 1941 .....	58,840	31,316
March 29, 1941 .....	57,516	31,937
April 13, 1940 .....	50,348	23,778
Cumulative Totals for Canada:		
April 12, 1941 .....	814,153	433,626
April 13, 1940 .....	704,529	363,779
April 15, 1939 .....	610,747	317,025

### T. & P. Issues Pledge on Car Efficiency

A 9 in. by 12 in. display card printed in red, white and blue, containing instructions to improve car efficiency, has been prepared for distribution to railroad employees hav-

ing to do with car movement and loading and shippers and receivers of freight, by the office of W. T. Long, Jr., superintendent transportation, Texas & Pacific, Dallas, Tex. Tied directly to the national defense effort points in the program are presented in the form of a pledge.

Text reads as follows:

#### MY PLEDGE

I promise and definitely I will, because of the present world conditions and plans for national defense, observe car service rules as never before which means:

1. Load foreign cars home or in direction of home.
  2. Load T&P cars to T&P destinations in preference to foreign cars.
  3. Use my best efforts to have all cars loaded to capacity.
  4. Not permit high grade cars to be loaded with any commodity that will damage interior thereby lowering classification.
  5. Not load company material in foreign cars.
  6. Will not use Canadian cars contrary to instructions—will see to it that they go home.
  7. Will handle automobile equipped cars according to instructions and will not delay them.
  8. Will be sure that end door automobile cars which I know are for Government truck loading are not delayed or misused.
  9. Will remember that 65 foot coal cars are required for handling of defense materials and on owning lines and will not misuse them.
  10. Will not delay the loading or unloading of any car and will ask all to make an effort to avoid mishandling and delays; in the unloading will complete the job—making car immediately available for another load.
- P. S.—In addition you can count on me to urge all those with whom I come in contact to follow the above "10" because a day saved on a car is to aid the job of preparedness now at hand.

### Speaker Rayburn Calls Perfect Shipping a Patriotic Measure

Sam Rayburn, speaker of the House of Representatives, called perfect shipping a "patriotic measure" in a talk before a special "perfect shipping" meeting of shippers and carrier representatives in Union station, Washington, D. C., on April 18. "Important as perfect shipping is to the shipper, the carrier and the consumer," he said, "it is today even more important to the nation as a whole. This is due to several things. The safe delivery of merchandise from the time it leaves the manufacturer until it is placed in the hands of the consumer means a conservation of materials, working hours and transportation services, which are so vital to our national defense program.

"The arrival of a broken machine at a plant engaged in national defense work is a very serious matter, because this will cause delay in production and will require the employment of men and time, not to mention money, to repair the damage. If this sort of thing occurs frequently and in many places throughout the land, the total result may be a blow to the program generally."

K. N. Merritt, general sales manager, Railway Express Agency, termed perfect shipping "a strong weapon of our national defense. The size or weight of a shipment is no guide to its essential character in the military scheme of things," he asserted. "The shipment may be an essential tool or a casting which will start a great machine into action. That, in turn, may produce vitally needed parts for the making of armaments or equipment and supplies for the trainee in the field."

Mr. Merritt said that loss of or damage to such a shipment "seriously disturbs pro-

duction schedules" and "cannot but be a handicap in making this 'arsenal of democracy' more efficient and productive."

Holcombe Parkes, associate director of public relations, A. A. R., read an address prepared by W. C. Kendall, chairman, Car Service division, A. A. R., who was unable to attend. The speaker declared that no single activity of the thirteen regional Shippers Advisory Boards holds out greater promise than their work in preventing loss and damage to freight in transit, and described the drive to check faulty shipping as "unique in that it bears no element of selfishness on the part of anyone. The shipper, the receiver and the railroad alike are affected. All parties in promotion of better packing and shipping having an axe to grind use the same grindstone."

### First Alco-Built Combat Tank Accepted by U. S. Army

On April 19 the first of 685 medium (M-3) combat tanks ordered on November 23, 1940, were tested and turned over, with appropriate ceremonies, to the United States Army by the American Locomotive Company at its plant at Schenectady, N. Y. The tank, built up of armor riveted together, has an overall length of 18 ft., is over 8 ft. in height, and weighs about 28 tons. It is made up of more than 14,000 parts, is armed with machine guns and 75- and 37-mm. cannon, and has a heavily armored rotating turret on top. It is driven by a 400-hp. fan-cooled gasoline engine of radial, aircraft type, located in the rear and is said to be capable of a sustained speed of upwards of 25 miles an hour. Steering is accomplished by hydraulic brakes.

The actual weight of the tank is carried on extraordinarily flexible wheel suspensions, three on each side. Each suspension is supported by two solid rubber-tired wheels and the angle of movement

of each pair of wheels is such as to permit the track underneath to bend over practically any obstacle which might be encountered.

In preparing for the building of these tanks many extensive alterations had to be made at the Schenectady plant of the American Locomotive Company. Thousands of square feet of floor space was diverted from the manufacture of locomotives and rearranged for efficient and rapid assembly-line production of combat tanks. More than two hundred new machine tools had to be ordered, received and installed, and existing machine tools had to be re-located. Over 2,500 different drawings had to be processed. Three hundred and fifty orders for materials were placed; engines, accessories, transmissions, etc., had to be supplied by the government in addition to armor plate and guns, and many hundred workmen had to be hired and specially trained.

In accepting the tank for the United States Government, Robert P. Patterson, Under-Secretary of War, said: "The record speed of the completion of this tank, fabricated by a commercial facility from new drawing to complete tank, again demonstrates the genius of American industry: (1) skilled loyal workmen; (2) trained, energetic leaders in the shop and mill; (3), intelligent, efficient, honest, driving management, and (4) the keen desire of organizations such as the American Locomotive Company to throw their experienced facilities into the job of turning out that which we need for our national defense in record time with high efficiency."

### Railway Wage Negotiations in Canada

Establishment of two Boards of Conciliation under Canada's Industrial Disputes Investigation Act to deal with wage differ-

ences which have arisen between Canadian railways and their employees throughout Canada, has been announced by Norman A. McLarty, the Dominion's Minister of Labor.

One board has been established to deal with the submission of employees who are members of 18 standard labor organizations covering various classes of services on both Canadian Pacific and Canadian National.

The other board will deal with an application from clerks, freight handlers, passenger station employees, sleeping car and dining car employees and other classifications who are members of the Canadian Brotherhood of Railway Employees and Other Transport Workers.

No permanent wage increase is being sought by the standard unions. Their case arises from their demand for a "cost-of-living bonus." The railway companies take the position that payment of a bonus is not justified by the advance of living costs so far sustained. In the case of the employees represented by the Canadian Brotherhood of Railway Employees and Other Transport Workers, demand is being made for payment of increased wages for certain classes of employees, as well as a "cost-of-living bonus."

Under the provisions of the Industrial Disputes Investigation Act employers and employees each nominate a representative to a board. These representatives then confer on the choice of a chairman and recommend his appointment to the Minister of Labor. Failing agreement between them an appointment is made by the Minister.

### Luhrsen Gives R. L. E. A. Viewpoint on St. Lawrence Seaway

That the St. Lawrence Seaway Project as a "national emergency" measure falls down on a simple definition of the latter criterion alone, was the viewpoint expressed by J. G. Luhrsen, executive secretary, Railway Labor Executives' Association, before an Eastern regional conference on the Great Lakes-St. Lawrence waterway power project held in Philadelphia, Pa., on April 15. The speaker, who stated that he was "not merely authorized but instructed on behalf of the R. L. E. A." to oppose the project, declared: "It is inconceivable how the application of the yard-stick of 'National emergency' measures correctly the real definition of those two grave and important words. To be *national* it must pertain to the nation as a whole, living under a single independent government. To constitute an *emergency*, it must represent an unforeseen combination of circumstances which calls for *immediate* action.

"This project will not and cannot benefit the nation as a whole by reason of its location and will, as the future shall prove, be discriminatory, and therefore can not be *national*. It does not constitute an *emergency* since no immediate action can be obtained since it cannot possibly be completed for a period of seven or eight years."

Against the seaway project as a whole the railway labor officer presented the following arguments:

(1) Although the United States will pay the larger portion of the cost it will make less use of the facility than nations having



This Is the First of 685 Medium Combat Tanks Which Are Being Built by the American Locomotive Company for the United States Army. This 28-ton War Machine Was Tested and Turned Over to the Armed Forces on April 19



a larger merchant marine. Since it will not be a four-track waterway, use of the channel by "six or seven foreign vessels to one of our own" will put the United States in the position of being "inferior in rights in both directions on a single track operation."

(2) Railroad employees will lose the haul of coal now exported from the United States to Canada and our coal miners will be made idle not only by loss of Canadian markets but by imports of coal to the United States as well.

(3) Foreign boats will return to our interior not as "light caboose hops" but loaded with heavy commodities such as coal, steel and cement as ballast.

(4) The present Administration and the Interstate Commerce Commission have agreed that we have an over-abundance of transportation; a new project would only add to the chaos.

(5) Desirable decentralization would be thwarted by the project since it will harm development of western, southwestern and southern states far removed from its influence.

(6) "Government grants and subsidies in one field of transportation are of necessity unfair to such modes of transportation as do not share in such philanthropy. The St. Lawrence waterway constitutes a subsidy pure and simple, no profits will ever accrue to our nation and it only means another burdensome and unnecessary tax on our people."

### Passenger Service Moves Ahead With the Clocks

Concurrent with general change of timetables to conform with the introduction of daylight saving time on April 27, a number of roads are putting entirely new runs and equipment in service; speeding up present running-times and re-arranging schedules to improve connections with "foreign" lines or afford more convenient hours of departure and arrival. While the new timetables cannot be checked until their issuance, the *Railway Age* has been advised of a number of important service improvements in advance.

In addition to the streamliner "James Whitcomb Riley" between Cincinnati, Ohio, and Chicago, and the "Michigan," between Detroit, Mich., and Chicago, entirely new trains which go into service April 27 (see the *Railway Age* for April 12, page 667), the New York Central is planning a number of schedule improvements. The "Cleveland Limited," all-Pullman train between New York and Cleveland, Ohio, will be placed on a new schedule 50 min. faster than at present, leaving New York at 8:05 p. m. and arriving in Cleveland at 7:30 a. m.; while its old schedule will be assumed by the "Ontarian-Lake Erie," leaving New York at 8:15 p. m., and arriving in Cleveland at 8:35 a. m.

A new stop at Cleveland will be made by the eastbound "Pacemaker," de luxe Chicago-New York coach train, which will continue on its present 17-hr. schedule. The departure time from New York of the "Detroit" and "Wolverine" will be advanced to six and seven p. m., respectively, five min. earlier than at present. The "Grand Central," Chicago to New York

train, will be hereafter known as the Advance Commodore Vanderbilt, and will leave Chicago at 1:30 p. m., and arrive in New York at 7:30 a. m. The "Buffalo Express," which arrives in New York at 4:45 a. m., hereafter will be known as "The Easterner," and the "Detroit Mail," leaving New York at 10:40 p. m., will be known as "The Fast Mail."

The Pennsylvania, as previously reported in the *Railway Age*, will inaugurate on April 27 its first "luxury," all-coach "Jeffersonian" between New York and St. Louis, Mo., and in connection with the Wabash two new trains between Chicago and Detroit known as the "Red Bird" and the "Chicago Arrow."

The New York, New Haven & Hartford, which last year completely revamped schedules of its New York-Boston, Mass., and New York-Springfield, Mass., fleet to provide "your - watch - is - your - timetable" service, is planning further changes when the clocks go forward. Hourly service will be extended through to 7 p. m. departure from New York and Boston by installation of "The Pershing Square," traversing the route in both directions in 4 hr., 35 min. New over-night runs via Hell Gate bridge between Boston and Washington, D. C., will be initiated on the "shortest running time in the railroad's history," and a brand-new afternoon train—"The Patriot"—introduced. Entirely new trains and a general speed-up are slated for the New York-Springfield service.

Effective April 27, Pullman sleeping cars will be added to the New York-Florida "Silver Meteor" of the Seaboard Air Line, hitherto an all-coach train. No reduction in coach facilities are planned, however; the train is to be much longer than was the summer "Silver Meteor" last year. The northbound run of the "Southern States Special" will also be speeded up substantially.

The Lehigh Valley will move forward departure time of the westbound "Black Diamond" from New York to Buffalo, N. Y., by 10 min. thereby permitting a new connection to points farther west via Michigan Central train No. 39. The eastbound "Maple Leaf" will be speeded up to save 33 min. in running time to Philadelphia, Pa., (via Reading from Bethlehem, Pa.) and 15 min. to New York.

### Settlement of Northern Pacific Land-Grant Claims

Northern Pacific land-grant claims which have been in controversy ever since the construction of the road began in 1870 have been settled (subject to Congress' opportunity to object) on the basis of proposals submitted by the road following the recent decision of the United States Supreme Court in the case. As indicated in the *Railway Age* of April 19, page 692, the proposed settlement was outlined in an April 11 letter sent by Attorney General Robert H. Jackson to both houses of Congress.

The copy addressed to Vice-President Wallace was referred to the Senate committee on public lands and surveys, and has been printed as Senate Document No. 48. In it Attorney General Jackson calls attention to a provision of the stipulation

in connection with the settlement which suspends the effective date "to afford Congress an opportunity to object." If he is not advised of such objection within 60 days of the April 11 date of his letter, Mr. Jackson "shall assume that none exists and will proceed to complete the settlement."

Under the proposed settlement, the Northern Pacific will: (1) Relinquish its claim against the United States to compensation for 1,453,016.02 acres of withdrawn lands still in question, the courts having denied the road's claim to the remainder of the approximately 2,900,000 acres originally in question.

(2) Relinquish its claim to approximately 363,000 acres of the 428,986.68 acres for which they were awarded patents by the decree of June 27, 1939, which the Supreme Court affirmed (the remainder of the area having been sold by the company to bona fide purchasers).

(3) Consent to a judgment in the sum of \$300,000 against the railway company and in favor of the United States in consideration for the discharge of the government's claim for 65,000 acres of land found by the courts to have been erroneously patented.

The government in addition to settling the above claim for the \$300,000 will agree to relinquish two small claims growing out of alleged breaches of contract on the part of the railroad. Also, the proposed settlement opened the way for the Northern Pacific to qualify for benefits of the Transportation Act of 1940's land-grant-rate-repeal provisions. Secretary of Interior Harold L. Ickes announced on April 20 that he had approved the formal release in that connection submitted by the railroad. The N. P. was the only land-grant railroad which had not previously signed a release of claims to land still in litigation with the government; and Mr. Ickes was thus able to give the final score. He put it this way: "More than 8,000,000 acres of land in 11 Western states—an area larger than the war-stricken Netherlands—have been restored to federal ownership with the completion of six-months' work in closing out early railroad land grants."

Proceedings in connection with the N. P. claims have been before the courts from time to time since 1916. The road originally was granted a total of about 39,400,000 acres; it claimed a shortage of 3,700,000 acres due to the classification of lands within the place limits of the grant as mineral lands. To make up the shortage the road sought land in the indemnity limits specified in connection with the grant, but the government withdrew 2,900,000 acres from the indemnity limits. The railroad has contested the right of the government to make this withdrawal so long as there remained a shortage in the grant. Congress in 1929 retained the land, but authorized the payment of compensation if the railroad claims were found valid. The N. P. claim to compensation for 2,900,000 acres was cut by the lower courts to the now-relinquished claim to compensation for 1,453,061 acres, while those courts also struck out the government's charges of breach of contract and fraud. In its recent decision the Supreme Court, among other things, remanded the case with an

order that the allegations of breach of contract and fraud be tried. Then the defendants, according to the Attorney General, submitted the proposal for settlement of the entire controversy.

## Carriers Want No More of Richards

(Continued from page 729)

trality of Judge Richards on the basis of his prior decisions, because to do so would be to assume appellate powers which the Board doesn't have to review Adjustment-Board decisions.

On the other hand Mr. Oates, speaking for the protestants, found some differences between the role of a referee and that of a court judge, while at the same time he found also court-procedure precedent for a Mediation-Board approach different from that suggested by Mr. Mulholland. Mr. Oates had in mind cases wherein courts have set aside awards of an arbitrator where such awards show gross error on their face—even though the parties in agreeing to arbitration had waived recourse to such relief. He contended that the Mediation Board, finding like gross error in Adjustment-Board awards, can look into the qualifications of its appointees; and he pointed out that protestants were not asking for a review of the Richards decisions in the sense that they were seeking to have the awards changed.

Getting under way with his argument, Mr. Mulholland asserted that the protest failed to state a case upon which the Mediation Board could disqualify Judge Richards. Because the Mediation Board has no appellate jurisdiction, he went on, it is none of that Board's business whether Adjustment-Board awards are "just or unjust, fair or unfair, wise or foolish." The protestants' entire case, as appraised by Mr. Mulholland, is based upon an analysis of a "selected group" of decisions; and his reply was that the claim as to prior erroneous decisions "even if true" would not justify disqualification. The only sense in which the term "neutral" is used in the Railway Labor Act, Mr. Mulholland insisted, is to indicate a person who is not interested in the outcome of the case; and such interest does not mean "any mere academic or intellectual interest." Moreover, he also insisted that "partiality or bias" sufficient to disqualify a referee cannot be sought in a prospective referee's general views or in his normal interest as a citizen in the questions involved. The most that the protestants had been able to show, he added, is that Judge Richards may have an "intellectual predilection toward a type of decision to which protestants are adverse"; and that "is what the courts have held is not sufficient to disqualify."

After outlining a few of the Richards decisions relied upon by protestants, Mr. Oates made a general statement on the 97 cases determined by the First Division "with the controlling vote" of Judge Richards as referee. Thirty-seven of the cases were decided in favor of the carriers and 60 were decided in favor of the employee organizations. In 39 of the latter, the

carrier members of the First Division allege, "there was no rational basis upon which an award adverse to the carriers could be justified or sustained." The same protestants assert that awards in the remaining 21 cases decided against the carriers "while erroneous, are susceptible to support by rational interpretation of the applicable agreements in the light of the precedents and circumstances involved."

Mr. Oates' analysis of the 37 cases decided in favor of the carriers sets forth that 16 "involved issues of relative unimportance"; 13 resulted in awards "which were inescapable in the light of either specific precedents or proven accords between the parties"; six involved debatable issues of importance; and in the remaining two, Referee Richards, while deciding in favor of the carriers, "added individual expressions respecting the issues which were prejudicial to the interests of the carrier."

Mediation Board Chairman George A. Cook, who presided at the argument, announced that the protestants' submission of records of cases participated in by Judge Richards would be received, subject to consideration by the Board of a motion by Mr. Mulholland that such material be rejected. Sitting with Chairman Cook were the other two members of the Mediation Board—David J. Lewis and Otto S. Beyer.

## Proposed Cancellation of Rates and Routes Via Short Lines

The Interstate Commerce Commission in a report by Commissioner Alldredge has found that railroads proposing to cancel joint rates and routes embracing certain short lines have failed in all except one instance to show that their proposals would be consistent with the public interest. The suspended schedules were ordered canceled to the extent that they were found unlawful in violation of section 3 (4) of the Interstate Commerce Act. The decision was in Investigation & Suspension Docket No. 4510, and it embraces also I. & S. Docket No. 4532.

Although virtually all railroads in the United States were technically parties to the proceedings, the carriers appearing in support of the suspended tariffs were the Chicago, Milwaukee, St. Paul & Pacific; Chicago & North Western; Minneapolis, St. Paul & Sault Ste. Marie; Chicago, Rock Island & Pacific; and Chicago Great Western. These have direct connections with the short lines involved, which were the Cedar Rapids & Iowa City; Chicago, Aurora & Elgin; Chicago, North Shore & Milwaukee; Clinton, Davenport & Muscatine; Waterloo, Cedar Falls & Northern; Minneapolis, Northfield & Southern.

The aforementioned single instance wherein the respondents were found to have shown their proposal to be consistent with the public interest was that involving joint rates and routes embracing the Cedar Rapids & Iowa City. In that connection the majority opinion noted that "overhead traffic of the C. R. & I. C. is but an insignificant part of its total traffic." Meanwhile the Clinton, Davenport & Muscatine was eliminated from the case, because it has abandoned its entire line since the publication of the suspended tariffs.

Separate expressions came from Commis-

sioner Porter, concurring in part, and Commissioner Miller, dissenting in part. Commissioner Mahaffie agreed with Commissioner Miller, while Commissioner Patterson's concurrence in the results of the majority opinion was noted. Commissioner Splawn did not participate in the disposition of the proceedings. In Mr. Porter's opinion the record did not justify the cancellation of routes in connection with the Cedar Rapids & Iowa City. Mr. Miller disagreed with the majority's disapproval of the proposed cancellation of joint routes in connection with the Waterloo, Cedar Falls & Northern; Chicago, North Shore & Milwaukee; and the Chicago, Aurora & Elgin.

Such disapproval, Mr. Miller said, "is based solely on the showing of the poor financial condition of these short lines"; and he reminded his colleagues that under the Interstate Commerce Act "we are forbidden to establish through routes and joint rates for the purpose of assisting any participating carrier therein to meet its financial needs." Mr. Miller added: "It is inconceivable that we have any different authority respecting the continuance of through routes." Also, he said later on that the majority findings "are based on glaring generalities and if followed to their logical conclusion, would leave the carriers helpless to effectuate economies through the elimination of wasteful and useless routes."

## Eastman Urges Transport Plan

(Continued from page 730)

will make great strides in safety, comfort, and dependability, to say nothing of speed, and that as a means of carrying property it will demonstrate its ability to become an important factor in the movement of at least high grade package freight."

As far as trucks and buses are concerned, the I. C. C. chairman thinks that the improvement in design, although it has been very rapid, will continue and probably trailers or semi-trailers will become as interchangeable as freight cars, particularly if state laws governing the sizes and weights of motor vehicles can be standardized, as he hopes will prove possible. It is also his opinion that there will be considerable improvement in the design and use of truck terminals as operations become better integrated.

"As time goes on," Mr. Eastman told the engineers, "we are likely to see the reservation of particular highways or lanes for truck travel. One of the vital problems, as you know better than I, is the construction of ways which will permit the free passage of traffic through or around the great metropolitan centers. There is a possible opportunity, I believe, for taking up joint consideration at the same time, and under the financial auspices of the government, the problem of unifying and improving the railroad terminal facilities in these same metropolitan centers."

On the subject of water transportation Mr. Eastman had only one thing which he could predict and that involved the han-

(News continued on page 744)



# READING COMPANY

## 43rd ANNUAL REPORT FOR THE YEAR ENDED DECEMBER 31, 1940

Philadelphia, Pa., March 25, 1941.

To the Stockholders of Reading Company:

The Board of Directors submits herewith its 43rd Annual Report of the operations and affairs of the Company for the year ended December 31, 1940:

	1940	1939	Increase or Decrease	
Average miles of road operated .....	1,448.69	1,449.91	1.22	.1%
Receipts from the transportation of anthracite and bituminous coal, merchandise, passengers, etc.....	\$63,797,976	\$56,744,549	\$7,053,427	12%
Cost of operating the railroad and maintaining the property .....	44,051,977	39,612,689	4,439,288	11%
Net Revenues.....	\$19,745,999	\$17,131,860	\$2,614,139	15%
Federal, State and other taxes .....	5,540,321	4,480,363	1,059,958	24%
Payments to other companies in excess of receipts from such companies for hire of equipment and use of joint facilities .....	744,872	720,493	24,379	3%
Net Railway Operating Income .....	\$13,460,806	\$11,931,004	\$1,529,802	13%
Income from investment in securities, property rentals and other items.....	1,995,481	1,921,812	73,669	4%
Miscellaneous income deductions .....	721,756	790,524	68,768	9%
Gross Income before deductions for fixed charges...	\$14,734,531	\$13,062,292	\$1,672,239	13%
Fixed charges—interest on funded debt, rentals paid for leased railroads, etc..	8,307,314	8,340,641	33,327	
Net Income available for dividends and other corporate purposes .....	\$6,427,217	\$4,721,651	\$1,705,566	36%
Percentage of each dollar of operating revenues consumed by operating expenses .....	69.05%	69.81%	.76%	
Rate of return on investment in property used for transportation service .....	2.99%	2.67%	.32%	
Times fixed charges earned .....	1.77	1.57	.20	
Earnings per share of First and Second Preferred Stock .....	\$4.59	\$3.37	\$1.22	
Earnings per share of Common Stock after First and Second Preferred dividend requirements of \$2.00 per share each.....	\$2.59	\$1.37	\$1.22	

Italics denote decreases.

### General Remarks

Reading Company's operating revenues in 1940 were the highest of any year since 1931. Receipts from the transportation of anthracite coal were greater than in any year since 1936; of bituminous coal, since 1931, and of general merchandise, since 1930. The following table shows the operating revenues for the year 1940 and a comparison with the year 1939:

	Revenues 1940	Increase over 1939 Amount	%
Freight:			
Anthracite Coal .....	\$14,972,743	\$1,591,867	11.9
Bituminous Coal .....	11,610,066	821,556	7.6
Merchandise .....	31,199,791	4,370,091	16.3
Passenger (Decrease).....	3,137,989	65,928	2.1
Mail .....	406,033	14,107	3.5
Express (Decrease) .....	413,095	1,060	.3
All other .....	2,058,259	322,794	15.7
Total .....	\$63,797,976	\$7,053,427	12.4

Expenditures in 1940 for maintenance of road and equipment were the heaviest since 1931, a total of \$17,827,913 (27.94% of operating revenues) being appropriated for this purpose, and the Company's transportation plant is now prepared to meet the demands that may be made on it. Transportation expenses increased \$1,486,224, or 7%, over 1939, due to an increase of 14% in freight tonnage transported. Total operating expenses were \$44,051,977 or 69.05% of total operating revenues. This was the lowest operating ratio of the Company in the past twenty years, except in the years 1933 (67.02%) and 1936 (68.34%).

Reading Company's tax bill of \$6,193,805 for 1940 was equivalent to: \$16.923 for each day of the year, or \$390 per employee, or \$2.21 upon each share of capital stock, or 9.7c out of each dollar collected from patrons, or 21c for each payroll dollar disbursed to employees.

### Financial Position, December 31st

	1940	1939	Increase or Decrease
The Company had investments in land, railroad tracks, terminal facilities, shops, locomotives, freight and passenger cars and other fixed property of .....	\$364,504,491	\$366,598,315	\$2,093,824
In addition the Company had investments in stocks, bonds and notes carried at.....	73,964,479	74,314,274	349,795
Total Investments.....	\$438,468,970	\$440,912,589	\$2,443,619
The Company had cash.....	\$10,868,500	\$6,210,507	\$4,657,993
Railroad companies and others owed the Company.....	4,318,260	3,691,182	627,078
The Company had on hand fuel, rails, ties, bridge material and other supplies necessary for keeping road and equipment in good repair ..	4,472,885	4,140,298	332,587
Deferred assets and unadjusted debits, including items due but not yet available to the Company .....	1,397,522	1,467,344	69,822
Total Assets of the Company were .....	\$459,526,137	\$456,421,920	\$3,104,217
The Company owed for materials, supplies, wages and balances to other railroad companies, and interest and rents accrued but not yet due ...	\$10,367,415	\$9,472,415	\$895,000
Taxes accrued but not due....	4,354,284	3,429,029	925,255
Reserve for depreciation of road and equipment .....	82,564,202	81,509,680	1,054,522
Deferred liabilities, including items due to others not yet adjusted .....	797,672	732,731	64,941
The total of these liabilities, credits and reserves was....	\$98,083,573	\$95,143,855	\$2,939,718
After deducting these items from the total assets there remained available capital net assets of .....	\$361,442,564	\$361,278,065	\$164,499
The capitalization of the Company consisted of the following:			
Funded Debt, including bonds, equipment obligations, etc.	\$127,686,381	\$127,551,465	\$134,916
First Preferred Stock.....	27,991,150	27,991,200	50
Second Preferred Stock.....	41,970,600	41,970,650	50
Common Stock .....	69,989,100	69,989,100	—
Making a total capitalization of .....	\$267,637,231	\$267,502,415	\$134,816
After deducting this capitalization from net assets there remained a corporate surplus of .....	\$93,805,333	\$93,775,650	\$29,683

### Rate of Return on Investment in Property Used in Transportation Service

The rate of return on property investment for each of the fifteen years ended December 31 was as follows:

Year ended December 31	Railway Property Investment Including Material and Supplies and Cash at end of Year	Net Railway Operating Income	Rate of Return on Investment (Per Cent.)
1926 .....	\$405,029,274	\$22,918,363	5.66
1927 .....	412,105,012	17,498,156	4.25
1928 .....	421,818,181	17,736,926	4.20
1929 .....	430,566,035	17,196,521	3.99
1930 .....	452,617,357	12,644,507	2.79
1931 .....	456,701,356	8,994,704	1.97
1932 .....	457,188,322	11,086,616	2.42
1933 .....	459,066,584	13,577,068	2.96
1934 .....	456,512,965	12,856,973	2.82
1935 .....	453,112,966	12,562,360	2.77
1936 .....	453,842,308	13,944,785	3.07
1937 .....	449,098,834	13,856,835	3.09
1938 .....	444,954,175	10,193,089	2.29
1939 .....	446,696,231	11,931,004	2.67
1940 .....	450,143,587	13,460,806	2.99

### Long Term and Other Debt

Changes occurred during the year in Funded Debt and Equipment Obligations as follows—	Funded Debt	Equipment Obligations
Outstanding Dec. 31, 1939 .....	\$122,132,583.78	\$3,177,241.57
Additional obligations incurred in 1940, for new Diesel Switching Locomotives .....	.....	915,550.00
Retired during year .....	\$122,132,583.78	\$4,092,791.57
Acquired for investment .....	1,615.67	647,467.24
Outstanding Dec. 31, 1940 .....	\$121,934,968.11	\$3,445,324.33

EDWARD W. SCHEER, President.

Ship and Travel via The Reading  
More Than A Century of Service

# NEW YORK CENTRAL RAILROAD COMPANY

## Annual Report

To the Stockholders of

THE NEW YORK CENTRAL RAILROAD COMPANY

The Board of Directors herewith submits its report for the year ended December 31, 1940.

The company experienced an encouraging improvement in business. Total operating revenues for the year were the greatest realized since 1931, and the net financial results the best since 1930.

The property has been well maintained, and its sound condition is best indicated by the ability of the company to transport efficiently the substantial increase in traffic which occurred. Improvements to plant, and extensions in order to serve new business, were made where necessary. Continued improvements in equipment and service were made in order to meet the demands resulting from the rapid development of industrial activity, and for the comfort and convenience of the traveling public.

### Operating Revenues

Revenues totaled \$370,545,874.82, a gain of \$29,459,166.53 (8.64%) compared with 1939.

Freight revenue amounted to \$270,274,027.58, which was \$30,143,362.74 (12.55%) in excess of the previous year, due to the larger volume of traffic. Revenue freight transported amounted to 136,549,195 tons, an increase of 17,256,190 tons (14.47%), while freight-train miles increased only 8.40%.

Tonnage of commodities by classes, with revenue therefrom (before deductions for absorbed switching, overcharges, etc.), compared with the previous year was:

Class	Tons handled	Increase or Decrease	Revenue	Increase or Decrease
Products of agriculture	8,282,390	267,007 D	\$19,165,572	\$799,234 D
Animals and products	2,375,279	99,472 I	17,694,091	1,321,666 I
Products of mines	82,595,517	11,381,637 I	91,019,142	12,028,233 I
Products of forests	2,937,842	447,870 I	6,877,931	926,339 I
Manufactures and miscellaneous	38,642,087	5,422,476 I	130,071,304	17,210,097 I
All less than carload traffic	1,716,080	171,742 I	17,127,957	1,911,870 I
<b>TOTAL</b>	<b>136,549,195</b>	<b>17,256,190 I</b>	<b>\$281,955,997</b>	<b>\$32,598,971 I</b>

Passenger revenue amounted to \$59,322,145.25, a decline of \$2,090,672.13 (3.4%) compared with 1939. There were 47,531,722 passengers carried, a gain of 1,061,053 (2.28%). Interline and local passengers carried increased 142,511 (5.66%) and 1,795,221 (12.30%), respectively, while commutation passengers carried decreased 876,679 (2.99%). Passengers carried one mile totaled 3,047,294,655, an increase of 148,389,199 (5.12%).

### Income Account

INCLUDING ALL LEASED LINES

	Year Ended Dec. 31, 1940 10,940.89 miles operated	Year Ended Dec. 31, 1939 11,008.13 miles operated	Increase or Decrease 67.24 miles
<b>OPERATING INCOME</b>			
Railway Operations			
Railway operating revenues	\$370,545,874.82	\$341,086,708.29	+\$29,459,166.53
Railway operating expenses	278,674,979.67	256,884,231.99	+21,790,747.68
<b>NET REVENUE FROM RAILWAY OPERATIONS</b>	<b>\$91,870,895.15</b>	<b>\$84,202,476.30</b>	<b>+\$7,668,418.85</b>
Percentage of expenses to revenues (Operating Ratio)	(75.21)	(75.31)	(-.10)
Railway tax accruals	\$33,476,018.75	\$31,735,690.27	+\$1,740,328.48
<b>RAILWAY OPERATING INCOME</b>	<b>\$58,394,876.40</b>	<b>\$52,466,786.03</b>	<b>+\$5,928,090.37</b>
Equipment rents, net debit	\$11,636,287.87	\$11,810,197.73	-\$173,909.86
Joint facility rents, net debit	2,706,151.50	3,353,161.26	-647,009.76
<b>NET RAILWAY OPERATING INCOME</b>	<b>\$44,052,437.03</b>	<b>\$37,303,427.04</b>	<b>+\$6,749,009.99</b>

### OTHER INCOME

Revenues from miscellaneous operations	\$596,740.75	\$587,800.30	+\$8,940.45
Income from lease of road and equipment	263,003.45	291,670.14	-\$28,666.69
Miscellaneous rent income	3,721,045.02	3,337,656.94	+383,388.08
Miscellaneous non-operating physical property	1,877,441.03	1,182,513.26	+694,927.77
Separately operated properties—profit	856,730.16	656,337.99	+200,392.17
Dividend income	6,579,040.16	6,460,070.98	+118,969.18
Income from funded securities	4,032,286.96	3,913,321.06	+118,965.90
Income from unfunded securities and accounts	128,112.36	281,886.41	-153,774.05
Income from sinking and other reserve funds	69,686.27	68,884.16	+802.11
Miscellaneous income	59,029.82	113,279.74	-\$54,249.92
<b>TOTAL OTHER INCOME</b>	<b>\$18,183,115.98</b>	<b>\$16,893,420.98</b>	<b>+\$1,289,695.00</b>
<b>TOTAL INCOME</b>	<b>\$62,235,553.01</b>	<b>\$54,196,848.02</b>	<b>+\$8,038,704.99</b>

### MISCELLANEOUS DEDUCTIONS FROM INCOME

Expenses of miscellaneous operations	\$443,882.67	\$422,369.91	+\$21,512.76
Taxes on miscellaneous operating property	76,963.84	79,215.74	-\$2,251.90
Miscellaneous rents	484,471.99	463,395.87	+21,076.12
Miscellaneous tax accruals	509,854.19	423,329.08	+86,525.11
Separately operated properties—loss	22,775.67	26,361.63	-3,585.96
Miscellaneous income charges	449,666.32	169,496.12	+280,170.20
<b>TOTAL MISCELLANEOUS DEDUCTIONS</b>	<b>\$1,987,614.68</b>	<b>\$1,584,168.35</b>	<b>+\$403,446.33</b>

### INCOME AVAILABLE FOR FIXED CHARGES

	\$60,247,938.33	\$52,612,679.67	+\$7,635,258.66
<b>FIXED CHARGES</b>			
Rent for leased roads and equipment	\$21,724,402.41	\$22,059,322.79	-\$334,920.38
Interest on funded debt	25,283,481.58	25,005,580.23	+277,901.35
Interest on unfunded debt	1,974,970.16	1,038,541.01	+936,429.15
<b>TOTAL FIXED CHARGES</b>	<b>\$48,982,854.15</b>	<b>\$48,103,444.03</b>	<b>+\$879,410.12</b>
<b>NET INCOME</b>	<b>\$11,265,084.18</b>	<b>\$4,509,235.64</b>	<b>+\$6,755,848.54</b>

Equipment depreciation charges included in expenses	\$15,989,969.39	\$15,926,938.13	+\$63,031.26
Included in other income and rent for leased roads and equipment are certain inter-company transactions representing credits and corresponding debits amounting to	\$4,331,859.09	\$3,920,865.44	+\$410,993.65
Also included in other income are items representing interest and dividends amounting to	\$1,443,271.94	\$1,501,861.31	-\$58,589.37
received on securities of and advances to terminal and other railroad companies whose properties are jointly used by this company, as to the major portion of which a like amount was paid by the company to those companies as rental and included in joint facility rents.			

### Profit and Loss Account

<b>BALANCE TO CREDIT OF PROFIT AND LOSS, DECEMBER 31, 1939</b>		<b>\$170,777,952.50</b>
<b>ADDITIONS:</b>		
Net income for the year 1940	\$11,265,084.18	
Credits from retired road property	34,510.82	
Donations	9,546.50	
Miscellaneous credits	372,631.48	
		<b>11,681,772.98</b>
<b>DEDUCTIONS:</b>		
Surplus appropriated for investment in physical property	\$112,626.29	
Debt discount extinguished through surplus	17,222.85	
Debits from retired road property (represents ledger value, less salvage recovered, of roadway property not required for transportation service retired during the year)	3,255,377.70	
Miscellaneous debits	995,055.80	
		<b>4,380,282.64</b>
<b>BALANCE TO CREDIT OF PROFIT AND LOSS, DECEMBER 31, 1940</b>		<b>\$178,079,442.84</b>

For the Board of Directors,  
F. E. WILLIAMSON, President.

[Advertisement]



# SOUTHERN PACIFIC COMPANY

## ANNUAL REPORT OF THE BOARD OF DIRECTORS TO THE STOCKHOLDERS FOR YEAR ENDED DECEMBER 31, 1940

**Net Income.** Southern Pacific Transportation System net income for 1940, amounted to \$9,315,610.94, compares with a net income of \$6,134,574.49 for 1939.

For Southern Pacific Transportation System and separately operated Solely Controlled Affiliated Companies, excluding the results of Southern Pacific Railroad Company of Mexico, which, from January 1, 1940, has been required to conduct its operations entirely within its own resources, consolidated net income of \$7,146,348.96 for 1940 is equal to \$1.89 a share of the outstanding capital stock of Southern Pacific Company. These results compare with a consolidated net income for 1939, restated as explained in note (c) on the accompanying income account, of \$3,128,442.67, equal to 83 cents a share of the outstanding capital stock of Southern Pacific Company.

**Operating Income.** Southern Pacific Transportation System had a net railway operating income of \$32,465,858.96 for 1940; an increase of \$4,037,448.81 or 14.2 per cent, over 1939.

**Revenues.** Operating revenues of the Transportation System increased \$14,359,390.37, or 6.6 per cent, compared with 1939.

Freight revenues were larger than for any year since 1930. The volume of revenue freight carried by the rail lines, measured in net ton-miles, was the largest in the history of the company, but the average revenue per net ton-mile, 1.032 cents, was smaller than for any year since 1917, mainly due to the progressive increase in the proportion of long-haul freight in the total tonnage carried and the cumulative effect of rate reductions made through the years to hold or gain traffic in competition with motor trucks and steamships. The principal revenue gains, compared with 1939, were from the movement of manufactures and the products of forests and mines, which, in the last quarter of the year, particularly, reflected the rising demand resulting from preparations for national defense. Increases in revenues from movement of a record tonnage of citrus fruits and heavier tonnage of some other agricultural products were largely offset by decreases due to a smaller tonnage of lettuce and other fresh vegetables, melons, fresh fruits, and grain, carried than in 1939.

Passenger revenues declined, compared with 1939, mainly due to less rail travel to and from the international expositions in California and New York, and the decrease in rail travel to and from seaports in connection with transatlantic and transpacific travel, due to war conditions abroad. The effect of these and other causes of revenue decline was partly offset by a substantial increase in revenues from government passenger traffic which was largely due to national defense activities, particularly troop movements incident to Army maneuvers and the expansion of Army, Navy, and Marine Corps forces.

Mail and express traffic and revenues increased. There was a net decrease in all other operating revenues, mainly because of decreases in earnings from Pullman car operations and revenues of dining and buffet cars.

**Expenses.** Operating expenses of the Transportation System increased \$9,827,088.96, or 6.16 per cent, compared with 1939; mainly because of the larger forces and greater quantities of material, fuel and other supplies required for operation and maintenance of the properties, due to the increase in volume of traffic.

The average number of employees was 59,172, an increase of 2,008, or 3.51 per cent, compared with 1939. The largest item in operating expenses, payrolls of \$103,321,101.18 increased \$5,589,601.76, or 5.72 per cent, over 1939. More employment was provided, than in 1939, for a number of employees who cannot be accorded full-time employment throughout the year.

Approximately 305 track miles of new rail, principally 112-lb. and 131-lb. weight per yard, and 304 track miles of secondhand rail of various weights, were used in repairs and renewals; compared with approximately 212 track miles of new rail and 225 track miles of relayer rail installed in 1939.

Expenditures for repairs to rolling equipment were increased as a result of greater demand for locomotive power and freight-

train cars in 1940, and expected demand in 1941 due to the speed-up in defense production. Progress was made on a program of modernization of passenger-train cars.

Greater efficiency was attained in transportation operations, partly due to acquisition in the latter part of 1939 of 40 new, heavy-duty steam locomotives. Freight train loading was heavier than in any previous year, resulting in the record movement of 35,731.1 gross ton-miles per freight train hour, an increase of 3.86 per cent over the previous high record made in 1939. Less fuel was consumed per 1,000 gross ton-miles in freight service and passenger service, than in any previous year.

**Taxes.** Railway tax accruals for 1940 amounted to \$17,858,044.69, a decrease of \$234,516.86, or 1.3 per cent, compared with 1939. Taxes took 28.5 cents of each dollar of net revenue from railway operations in 1940, and are equivalent to \$4.73 a share of the outstanding capital stock of your Company. The accruals by classes of taxes were as follows:

Unemployment insurance taxes .....	\$3,289,624.15
Federal retirement (pension) taxes .....	3,304,124.06
Other Federal taxes .....	103,439.69
State, County and City taxes .....	11,109,515.52
Miscellaneous taxes .....	51,341.27
<b>Total .....</b>	<b>\$17,858,044.69</b>

**Rents.** Net charges for equipment rents amounted to \$11,850,073.18, an increase of \$1,011,400.91, or 9.33 per cent, over 1939.

Net charges of \$489,590.89 for joint facility rents decreased \$282,031.45, or 36.55 per cent, compared with 1939.

**Other Income.** Income from sources other than railway operations decreased \$1,187,578.64, or 12.82 per cent, mainly due to a decrease of \$573,880.80 in credits to miscellaneous income for charges against Pacific Fruit Express Company and a decrease of \$240,000 in dividends received from that company. Other principal causes of decreased income were smaller dividends received from Reward Oil Company and Pacific Greyhound Lines; decreased rental from road and equipment leased, due to sale to Pacific Electric Railway Company of rolling equipment previously leased to that company; a decrease in miscellaneous rents; and discontinuance of restaurant and news service which had been conducted by your Company's commissary department on Southern Pacific Golden Gate vehicle ferries which ceased operations May 16, 1940. The decrease in restaurant and news service income was accompanied by a decrease of slightly larger amount in expenses and taxes on such operations.

**Capital Stock.** The Board of Directors by resolutions adopted January 11, 1940, and April 15, 1940, and the Stockholders by resolution adopted at the Annual Meeting on April 3, 1940, authorized (1) changing the authorized capital stock of your Company, consisting of 5,944,518 common shares of the par value of \$594,451,800, of which 3,772,763.0564 shares had been issued and were outstanding, and 2,171,754.9436 shares were unissued, into the same number of common shares without nominal par value; (2) the substitution share for share of 3,772,763.0564 of the shares without nominal par value for the issued and outstanding par value shares; (3) the issue of the 2,171,754.9436 shares of authorized but unissued common stock without nominal par value for lawful purposes of your Company from time to time as authorized by the Board of Directors; and (4) the inclusion of the 3,772,763.0564 shares of issued and outstanding common capital stock without nominal par value in the capital stock account at an amount equal to the par value and the premium on the stock for which they were substituted, viz.: \$383,581,150.64. These changes were accomplished by filing amendment to the Charter or Articles of Incorporation of your Company on April 22, 1940. There was no change during the year in the number of shares of capital stock issued and outstanding. The number of stockholders, at the end of the year, was 43,876, compared with 44,860 at the end of 1939.

**Funded Debt.** There was a net increase, during the year,

of \$3,684,649 in funded debt of Southern Pacific Transportation System held by the public.

An equipment trust, known as "Southern Pacific Company Equipment Trust, Series Q," was created to provide for the construction and acquisition of certain new rolling stock for delivery in 1940 and 1941, and \$11,820,000, par value, of 2¼ Per Cent Equipment Trust Certificates was issued under authority of the Interstate Commerce Commission. The certificates are dated October 1, 1940, and mature serially, in lots of \$788,000 on October 1 of each year from 1941 to 1955, both inclusive, and are guaranteed by your Company.

Funded debt was retired during the year in the principal amount of \$8,135,351, consisting of equipment trust certificates matured and paid off, installments due and paid on promissory note of Los Angeles Union Terminal Company, bonds purchased from payments to sinking funds or acquired for use in satisfaction of sinking fund provisions of mortgages, and bonds purchased and held alive in the treasury of the Company. It will be noted, however, that interest on bonds and notes, for 1940, decreased \$103,309.60.

On January 8, 1941, payment of \$1,800,000 was made on Reconstruction Finance Corporation loan maturing May 1, 1941, reducing the amount that will be due on that date to \$10,000,000. An additional \$8,000,000 of such loans mature April 28, 1942.

**Bank Loans.** Bank loans were increased on October 16, 1940, from \$18,000,000 to \$20,000,000, maturing \$1,000,000 September 10, 1941, \$1,000,000 October 10, 1941, and \$18,000,000 November 1, 1941. On January 6, 1941, the loans maturing September 10 and October 10, 1941, were paid.

**Additions and Betterments.** Expenditures by Southern Pacific Transportation System for additions and betterments amounted to \$12,778,559.96, a decrease of \$3,650,088.02 compared with 1939.

The expenditures in 1940 include approximately \$991,700 of the cost of new rolling stock ordered in 1939; and approximately \$3,256,700 of the cost of the 1940 new equipment program, which includes 20 streamlined, steam passenger locomotives, 51 lightweight, streamlined passenger-train cars, 1,500 box cars, and 500 automobile cars, purchased under Equipment Trust, Series Q; and 540 freight-train cars of various types, covered by conditional sales contracts under which payments will extend over a period of ten years, with 190 units of such equipment being constructed in your Company's shops.

Arrangements were also made by your Company, Union Pacific Railroad Company, and Chicago and North Western Railway Company, jointly, and The Pullman Company, for new equipment required to place a second 17-car streamliner on the San Francisco-Chicago run, which will provide "City of San Francisco" service on a schedule of 39¾ hours every third day instead of every sixth day as at present.

Deliveries of freight cars commenced in November, 1940, and it is expected all the new equipment mentioned will have been delivered by the end of May, 1941.

Approximately 477 track miles of the rail laid in renewals, during the year, replaced rail of lighter weight. Progress was made on a program of improvements to locomotives, freight-train cars and passenger-train cars, and improvements were made in shop facilities at various terminals. Construction of a 230-foot bascule lift type bridge was completed, replacing a swing drawbridge at the main line crossing of the Neches River at Beaumont, Texas, to provide increased horizontal clearance required by order of the Secretary of War. Application has been made to the United States Government for reimbursement of the major portion of the cost of the new bridge under provisions of legislation enacted in 1940. Among other projects undertaken during the year were new passenger stations at Palo Alto, Alhambra, and Pomona, California, installation of concrete lining in 4,284 lineal feet of tunnels on the Cascade Line, and extension of a number of sidings on various main lines.

**General.** Improvements in freight service included making one day earlier delivery of transcontinental freight at Pacific Coast terminals commencing June 3, 1940, with delivery of freight from Chicago on sixth morning; from St. Louis on fifth morning.

Service for merchandise and other less-than-carload freight was further improved, during the year, by expansion of motor truck services coordinated with rail operations. At the end of the year, over-the-highway service provided by companies solely controlled by your Company extended over 9,639.4 miles of roads, compared with such operations on 7,745.1 miles of roads at the close of 1939.

Passenger service was improved, during the year, by the addition of "Noon Daylight" trains on the Coast Line between San Francisco and Los Angeles; establishment of economy type train service on the Shasta Route by addition of the "Beaver" schedules between San Francisco and Portland, Oregon; and by operation jointly with the Rock Island Lines of a lightweight, extra-fare train between Chicago and Phoenix, Arizona, on the Golden State Route, for the winter tourist season. Schedules of certain other passenger trains were changed to provide more convenient leaving and arriving time at terminals. Further improvements in service will be made in 1941, when new locomotives and passenger-train cars are received.

Operations of your Company's steamship lines between North Atlantic ports and the Gulf ports of Houston, Galveston, and New Orleans, have been under continuous review in an effort to find practical means of overcoming net losses due to relatively low rates in effect and increased operating and maintenance costs. During 1940 the situation was aggravated and became increasingly critical. Improvement of business conditions and discontinuance of service by several other coastwise steamship lines resulted in a larger volume of cargo being offered than could be handled satisfactorily on the fast schedules then in effect which involved very short turn-around time at ports and increased operating costs, particularly for loading and discharging cargo. As a measure of partial relief, direct service to Boston, New Bedford and Norfolk was discontinued on December 11, 1940, permitting more economical operation of the remaining service to New York and Baltimore. On January 20, 1941, announcement was made of sale to the United States Navy of the passenger and freight steamship Dixie, which has been operated in the New Orleans-New York line since January, 1928; and on February 14, 1941, announcement was made of discontinuance of steamship service between New Orleans and New York coincident with delivery of the Dixie to the Navy on March 3, 1941.

Approval by the Secretary of the Interior on December 28, 1940, of releases filed by your Company, Central Pacific Railway Company, and Southern Pacific Railroad Company, releasing all rights under the land grant acts in accordance with provisions of the Transportation Act of 1940, enabled your Company to charge the full applicable commercial rates, fares and charges for transportation of persons and property for the United States, or on its behalf, except military or naval property of the United States moving for military or naval use, and members of the military or naval forces when travelling on official duty. These releases in general terms release to the United States all rights, interests and claims of the Companies, and their predecessors in interest, under the land grant acts in and to lands which had not been patented to the Companies, including lands for which patents could not be obtained because of their mineral character, as well as any claims which may have existed because of a deficiency in acreage of suitable public lands within the land grant limits.

The net deficit of Pacific Electric Railway Company for 1940 was \$2,543,120.46, compared with a net deficit of \$2,918,734.19 for 1939. The deficits include interest accrued on bonds of the Pacific Electric owned by your Company, such interest amounting to \$1,308,317.80 for 1940, and \$1,288,600 for 1939. Auto bus operations were increased 177.37 route miles during the year, mainly as the result of substituting bus routes for passenger train service on certain rail lines on which freight operations were continued, and 47.99 miles of unprofitable rail lines which were abandoned in December 1940 under authorities of the Interstate Commerce Commission and California Railroad Commission. The Company purchased 30 new rail passenger cars of latest type and 117 new modern buses; and 96 rail passenger cars of suitable type were modernized. Further rail line abandonments, substitution of bus for rail service, and modernization of rail equipment are in progress under the program mentioned in last year's report.

Interurban Electric Railway Company had a net deficit for 1940 of \$661,426.42, compared with a net deficit of \$961,158.30 for 1939. Reduction of automobile toll on the San Francisco-Oakland Bay Bridge to 25 cents, during 1940, caused further decline in the number of passengers carried by the Interurban Electric. Operating economies were effected by rearrangement of schedules on February 26, 1940, and by reduction of maintenance expenditures in anticipation of abandonment of operations, authorization of which by Federal and State regulatory



authorities was requested on February 26, 1940, as mentioned in last year's report. The California Railroad Commission, on August 26, 1940, authorized abandonment of operations by Interurban Electric upon establishment by Key System, a company in which your Company has no ownership interest, of suitable substitute service for traffic carried by the Interurban Electric Railway Company. The Interstate Commerce Commission, on October 29, 1940, authorized abandonment and dismantling of the electric rail lines of your Company, used by Interurban Electric under trackage rights, except those sections of track required by your Company for freight service operations. By successive steps under these authorities, the Interurban Electric abandoned its San Francisco-Alameda service on January 18, 1941; will abandon its San Francisco-Oakland-San Leandro service on March 22, 1941; and shortly thereafter will abandon its remaining service between San Francisco and Emeryville, Albany, and Berkeley.

Northwestern Pacific Railroad Company had a net deficit for 1940 of \$1,763,338.50, compared with a net deficit for 1939 of \$1,790,650.57. The deficits for both years include \$1,245,465 of interest accrued on bonds of Northwestern Pacific owned by your Company. As mentioned in last year's report, the Northwestern Pacific on December 22, 1938, applied to the California Railroad Commission for authority to discontinue its unprofitable interurban passenger service, operated by means of passenger ferries and electric trains, between San Francisco and communities in Marin County, California. Experimental increase in commutation fares and reduction of frequency of service, under order of the Commission, during the first ninety days of 1940, proved a failure, and on May 21, 1940, the Commission authorized abandonment of the interurban service upon establishment by the Pacific Greyhound Lines of a substitute motor coach commutation service. Such substitute service was partly established October 1, 1940, permitting reduction in rail service. Substitution of Pacific Greyhound motor coach service for the remaining interurban service of Northwestern Pacific was effected March 1, 1941, and operation of electric trains and passenger ferries by Northwestern Pacific was discontinued on that date. Steam-train passengers and baggage are now carried between San Francisco and the Northwestern Pacific rail terminal in Sausalito by Pacific Greyhound.

For 1940, Southern Pacific Railroad Company of Mexico had a net deficit of \$597,771.29 after all charges, including a charge of \$618,913.02 for amortization of investment in property subject eventually to reversion to Mexican Government under provisions of concessions granted the company many years ago.

The Board gratefully acknowledges its appreciation of the loyalty and efficient services of officers and employees.

By order of the Board of Directors,

A. D. McDONALD,  
President.

#### Income

Southern Pacific Transportation System (Southern Pacific Company and Transportation System Companies, Consolidated) and Separately Operated Solely Controlled Affiliated Companies.

SOUTHERN PACIFIC TRANSPORTATION SYSTEM: (a)	Year 1940	+ Increase - Decrease	Per Cent
Freight revenues .....	\$189,213,149.02	+ \$16,497,841.70	9.55
Passenger revenues .....	24,480,121.62	- 1,488,191.66	5.73
Mail and express revenues .....	7,923,113.45	+ 159,129.99	2.05
All other operating revenues .....	10,315,895.35	- 809,389.66	7.28
Total railway operating revenues .....	\$231,932,279.44	+ \$14,359,390.37	6.60
Maintenance of way and structures .....	\$24,508,748.26	+ \$2,356,931.38	10.64
Maintenance of equipment .....	38,936,085.26	+ 1,641,643.80	4.40
Traffic expenses .....	6,151,354.25	- 240,147.43	3.76
Transportation expenses .....	87,125,990.50	+ 6,136,274.58	7.58
All other operating expenses .....	12,546,533.45	- 67,613.37	.54
Total railway operating expenses .....	\$169,268,711.72	+ \$9,827,088.96	6.16
Net revenue from railway operations .....	\$62,663,567.72	+ \$4,532,301.41	7.80
Railway tax accruals .....	17,858,044.69	- 234,516.86	1.30
Equipment and joint facility rents—Net .....	12,339,664.07	+ 729,369.46	6.28
Net railway operating income .....	\$32,465,858.96	+ \$4,037,448.81	14.20

Revenues from miscellaneous operations .....	\$37,731.26	-	\$143,547.25	79.19
Income from lease of road and equipment, and miscellaneous rent income .....	1,501,553.86	-	234,280.69	13.50
Dividend income .....	3,570,144.24	-	486,142.59	11.98
Income from funded securities .....	289,765.44	-	46,804.99	13.91
Other income accounts .....	2,673,892.94	-	276,803.12	9.38
Total other income .....	\$8,073,087.74	-	\$1,187,578.64	12.82
Total income .....	\$40,538,946.70	+	\$2,849,870.17	7.56
Expenses and taxes on miscellaneous operating property .....	\$38,618.03	-	\$144,034.62	78.86
Miscellaneous rents .....	591,436.90	-	67,416.35	10.23
Other miscellaneous deductions from income .....	730,589.17	+	24,884.26	3.53
Total miscellaneous deductions .....	\$1,360,644.10	-	\$186,566.71	12.06
Income available for fixed charges .....	\$39,178,302.60	+	\$3,036,436.88	8.40
Rent for leased roads and equipment .....	\$34,185.22	+	\$3,120.69	10.05
Interest on funded debt—Bonds and notes .....	29,108,263.00	-	103,309.60	.35
Interest on funded debt—Non-negotiable debt .....	848.75	+	81.43	10.61
Interest on unfunded debt .....	719,394.69	-	44,492.09	5.82
Total fixed charges .....	\$29,862,691.66	-	\$144,599.57	.48
Net income of Southern Pacific Transportation System .....	\$9,315,610.94	+	\$3,181,036.45	51.85
SEPARATELY OPERATED SOLELY CONTROLLED AFFILIATED COMPANIES:				
Operating in the United States—Net deficit .....	4,641,304.50	-	777,304.39	14.35
Operating in the Republic of Mexico—Net deficit .....	(b) (c) 81,740.28	-	39,847.65	32.77
CONSOLIDATED ADJUSTMENT:				
Interest on bonds of separately operated Solely Controlled Affiliated Companies owned by Southern Pacific Company not included in the income of Southern Pacific Transportation System shown above .....	2,553,782.80	+	19,717.80	.78
CONSOLIDATED NET INCOME OF SOUTHERN PACIFIC TRANSPORTATION SYSTEM AND SEPARATELY OPERATED SOLELY CONTROLLED AFFILIATED COMPANIES .....	(b) (c) \$7,146,348.96	+	\$4,017,906.29	128.43

(a) Consolidated results of Southern Pacific Transportation System exclude (1) offsetting accounts, covering interest on funded securities and rentals for leased properties, as between companies comprising the Transportation System, and (2) dividends received from Transportation System and separately operated Solely Controlled Affiliated Companies, offsetting charges for which were not made to income accounts included in the above statement for such companies.

(b) Results of Southern Pacific Railroad Company of Mexico excluded. Policy adopted January 1, 1940 of making no further advances to that company, it being required to conduct its operations entirely within its own resources. Net deficit of other separately operated Solely Controlled Affiliated Companies operating in the Republic of Mexico reported herein, includes (1) Mexican Currency transactions converted to U. S. Currency at average commercial exchange rates for months in which the transactions occurred, ranging from 4.85 to 5.99 pesos per dollar for 1940, and 4.88 to 5.98 pesos per dollar for 1939, and (2) Mexican Currency charges for depreciation, amortization, and property retirements converted at exchange rates equaling, or closely approximating, those in effect at time the property was acquired.

(c) For comparative purposes, 1939 figures have been restated to exclude the net deficit of the Southern Pacific Railroad Company of Mexico and to reflect the net deficit of other separately operated Solely Controlled Affiliated Companies operating in the Republic of Mexico on the basis described in note (b).

#### CONSOLIDATED BALANCE SHEET—DECEMBER 31, 1940

##### SOUTHERN PACIFIC TRANSPORTATION SYSTEM

(Southern Pacific Company and Transportation System Companies, Consolidated, Excluding Inter-Company Securities and Open Account Balances)

The assets reported below are stated on the basis of the classifications prescribed by the Interstate Commerce Commission. Other than the reserves provided, no attempt has been made to adjust the assets to current estimated values.

#### ASSETS

INVESTMENTS		
Transportation property .....	\$1,464,423,485.18	
Miscellaneous physical property .....	27,707,114.86	
Sinking funds .....	607,248.70	
Affiliated companies—Securities and advances .....	273,434,281.51	
Other investments, including securities of, and advances to, non-affiliated companies .....	24,136,448.38	\$1,790,308,578.63
Deduct:		
Reserve for accrued depreciation—Road, equipment, and miscellaneous physical property .....	\$155,050,450.92	
Reserve for amortization of improvements on leased property and investment in property subject to reversion .....	1,468,606.91	

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Appropriated surplus—Reserve for decline in investment securities and advances .....	149,513,476.96	306,032,534.79
Net investments .....		\$1,484,276,043.84
<b>CURRENT ASSETS</b>		
Cash .....	\$32,745,697.89	
Material and supplies .....	14,275,953.26	
Other current assets .....	19,435,108.14	66,456,759.29
<b>DEFERRED ASSETS AND UNADJUSTED DEBITS</b>		
Deferred assets .....	\$1,001,754.04	
Unadjusted debits .....	9,142,321.70	10,144,075.74
Grand total .....		<u>\$1,560,876,878.87</u>
<b>LIABILITIES</b>		
<b>CAPITAL STOCK HELD BY THE PUBLIC</b>		
Southern Pacific Company (3,772,763.0564 shares, no par value) .....	\$383,581,150.64	
Transportation System Companies .....	1,400.00	\$383,582,550.64
<b>GRANTS IN AID OF CONSTRUCTION</b>		
FUNDED DEBT UNMATURED		4,559,532.51
Held by the public .....	\$708,779,489.49	
Held by Solely Controlled Affiliated Companies .....	5,000.00	
Held in sinking funds:		
By Transportation System Companies .....	485,000.00	
By Solely Controlled Affiliated Companies .....	286,000.00	709,555,489.49

<b>NON-NEGOTIABLE DEBT TO AFFILIATED COMPANIES</b>		
Bonds held in sinking funds by Transportation System Companies .....	\$106,000.00	
Open accounts .....	11,283,337.84	11,389,337.84
<b>CURRENT LIABILITIES</b>		
Loans and bills payable .....	\$20,000,000.00	
Accounts and wages payable .....	14,765,806.27	
Interest matured unpaid .....	1,076,016.50	
Interest payable January 1st .....	4,266,216.25	
Unmatured interest accrued .....	5,839,638.61	
Other current liabilities .....	1,052,040.51	46,999,718.14
<b>DEFERRED LIABILITIES AND UNADJUSTED CREDITS</b>		
Deferred liabilities .....	\$2,525,851.30	
Unadjusted credits .....	20,000,290.96	22,526,142.26
<b>CONSOLIDATED ADJUSTMENT</b>		
Excess of inter-company liabilities over assets eliminated .....		68,237,307.56
<b>CORPORATE SURPLUS</b>		
Appropriated surplus .....	\$159,594,842.15	
Less:		
Reserve for decline in investment securities and advances deducted from "Investments" on asset side .....	149,513,476.96	
Balance of appropriated surplus .....	\$10,081,365.19	
Profit and loss—Balance .....	303,945,435.24	314,026,800.43
Grand total .....		<u>\$1,560,876,878.87</u>

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## NEWS

(Continued from page 738)

dling of sea-going freight at docks. He noted that the cost of loading and unloading freight on boats has become so high that attention is being concentrated on the use of mechanisms to improve the old-time methods. He told his hearers that the Seatrains which pick up by crane and carry loaded freight cars, is one method of meeting this problem and that he suspected that there are or will be others.

After advocating a centralized research bureau for the railroads, Chairman Eastman commended the railroads for making their new engines and passenger cars "things of very real beauty." "In time," he continued, "I hope to see this trend toward beauty reach the smaller railroad passenger stations. Of course it already has reached the monumental stations in some of the larger cities, but parenthetically I venture the view that the cost of such lavish structures ought to be borne in part by the committees to whose civic pride they minister.

"Personally I have no doubt that beauty, not lavish but simple, is an element of utility. It is as important a factor as comfort in the satisfaction of the public that is served, and it attracts business. It also reacts favorably on the employees, as many modern industrialists have demonstrated by test and experience."

Discussing the introduction of labor-saving devices in the future the chairman of the I. C. C. suggested that the best time for their introduction is in a period of rising traffic and that conversely, the worst time is in a period of falling traffic. In view of the present high and rising tide of traffic caused by the national defense program, Mr. Eastman believes that this is a phase of the matter to which railroad management might well give thought.

"One very important matter with relation to transportation competition is not within the commission's control," concludes

Mr. Eastman. "A very large part of our transportation facilities are publicly owned. I refer to the highways, the inland waterways, port terminals, harbor improvements, airports, and other aids to both water and air navigation. Therein lies a danger. To some extent the country is paying for its transportation service through taxes rather than through rates and fares. That is a question of public policy, but clearly the country ought to know what all the facts are in this respect and to have in mind the possible consequences."

After pointing out that recently he had released a four-volume study on this subject and that it had met with considerable criticism from certain quarters, he expressed the hope that the new transport study board would deal with his report as would an appellate tribunal. He also told the engineers that the commission now has control of rail, truck, water, and pipeline transportation and that in view of the highly competitive nature of these forms of transportation, it will probably prove impossible to regulate all of them to the satisfaction of all concerned.

### N. & W. Film Viewed by 83½ Thousand Since November 1

"The Power Behind the Nation", a color and sound motion picture on the bituminous coal industry prepared by the Norfolk & Western, has been shown 447 times to audiences totaling 83,484 persons in 26 states since its initial showing on November 1, 1940. Showings represent an average of three daily, seven times a week, with an average attendance of 187 per showing.

Currently there are 23 prints of the film in circulation among coal organizations, civic clubs, commercial and industrial groups, schools, colleges, and other types of non-theatrical film exhibitors. The movie, photographed by W. E. Austin, N. & W. cinematographer, and narrated by Bob Trout, Columbia Broadcasting system commentator, was awarded honorable men-

tion with the two best non-theatrical films in the commercial class, in annual international competition of 1940.

### Record Ore Movement on Lakes

Due to the early opening of navigation on the Great Lakes, iron ore is now moving "in a volume unprecedented at this time of the year," according to Ralph Budd, defense transportation commissioner. Mr. Budd this week cited preliminary reports showing that through April 15 a total of 1,000,000 tons of iron ore had been loaded into boats at upper lake ports; this compares with a total of 464,669 tons moved up to the end of April in 1940 and 56,798 tons moved up to the end of April in 1939.

The railroads at the lower lake ports loaded a total of 8,643 cars of ore during the first half of April, whereas in 1940 no ore was loaded during the corresponding period and only 1,610 cars were loaded during the entire month of April.

### Reorganization of Mexican Lines Resumed After Unions Protest

Discussion of plans to reorganize the National Railways of Mexico was resumed on April 18, following a threat made by Avila Camacho, president of Mexico, that the government would be obliged to take drastic steps if the Union of Mexican Railway Workers was not willing to co-operate with the government. The controversy dates back to March 21 when General Enrique Estrada, general manager of the railways, as reported in the *Railway Age* of March 29, presented a plan of reorganization to the Mexican Senate. When this report was made, three members of the board resigned from the board as a protest against the general manager, who had not previously made his plan known to the board of directors of the Union. Upon President Camacho's threat, the 36 sections of the Union ordered the directors who had resigned to return to the board.

Continued on next left-hand page



From a white hot billet . . . To a cold steel rod  
LIMA QUALITY IS "POUNDED-IN" EVERY STEP OF THE WAY



From the time a potential Lima piston rod leaves the heating furnace until it is placed on a locomotive "ready for service", it undergoes the rigid tests for quality and tolerances that have earned for Lima its reputation as a builder of high-performance, low-maintenance locomotives. The illustration above is a typical scene at Lima showing the first step in fabricating a "Lima Quality" Piston Rod.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO

# Equipment and Supplies

## LOCOMOTIVES

THE WHITCOMB LOCOMOTIVE COMPANY has received orders for Diesel-electric and other internal-combustion type locomotives during the first three months of 1941, that were not previously reported by the *Railway Age*, as follows:

January				
Purchaser	No.	Type*	Weight	H.P.
Roberval & Saguenay Ry. <sup>a</sup>	1	D.E.	50-tons	386
Atlantic Steel Co. ....	1	D.E.	50-tons	320
The Midvale Co. ....	2	D.E.	50-tons	320
Vanadium Corp. of America	1	D.M.	30-tons	210
Wabash Portland Cement Co. ....	1	D.M.	25-tons	190
Erie City Iron Works ...	1	G.M.	30-tons	190
U. S. War Department..	5	G.M.	20-tons	190
February				
Stone & Webster .....	2	D.E.	80-tons	500
Aluminum Co. of America	1	D.E.	80-tons	650
West. Elec. & Mfg. Co..	1	D.E.	50-tons	320
Chicago & Northwestern.	1	D.H.	30-tons	190
John A. Roebling's Sons	1	D.H.	30-tons	190
The Midvale Co. ....	1	D.H.	25-tons	193
Pennsylvania Forge Co..	1	G.M.	25-tons	190
March				
Electro-Metallurgical ....	2	D.E.	80-tons	500
Scullin Steel Co. ....	1	D.E.	50-tons	320
Brooklyn Navy Yard ....	3	D.E.	45-tons	300
Maxon Construction Co..	1	D.E.	50-tons	300
Union Carbide .....	1	D.E.	45-tons	300

\* D.E.—Diesel-electric  
D.M.—Diesel-mechanical  
D.H.—Diesel-hydraulic  
G.M.—Gasoline-mechanical  
<sup>a</sup> Canadian order.

*Railway Age* statistics of locomotive orders placed during the first three months of 1941 will be reported in revised form, so as to include the above orders, in the *Railway Age* of May 10, in which issue April orders will be summarized and cumulative totals for the year thus far also reported and compared.

THE PURCHASING AGENT, U. S. INTERIOR DEPARTMENT, Alaska Railroad, Seattle, Wash., is asking for bids May 10 on one mountain type (4-8-2) locomotive, Inv. 08893.

THE UNITED STATES NAVY DEPARTMENT has ordered one 50-ton Diesel-electric locomotive for service at White Plains, Md., from the General Electric Company. The inquiry for this locomotive was reported in the *Railway Age* of February 8.

THE WALSH CONSTRUCTION COMPANY has ordered one 300-hp. Diesel-electric locomotive from the Whitcomb Locomotive Company.

DAY AND ZIMMERMAN, INC., Philadelphia, Pa., have ordered four 44-ton Diesel-electric locomotives of 380-hp. from the Whitcomb Locomotive Company.

THE HOUSTON SHIPBUILDING CORPORATION has ordered three 30-ton Diesel-electric locomotives from the Whitcomb Locomotive Company.

THE CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC has ordered six 44-ton Diesel-electric switching locomotives of 380-hp. from the Whitcomb Locomotive Company and two of 360-hp. from the General Electric Company. Inquiry by this company for ten 44-ton Diesel-electric switching locomotives

was reported in the *Railway Age* of March 15. The Davenport Besler Corporation received the order for the remaining two units as reported in the *Railway Age* of April 12.

## FREIGHT CARS

### Atlantic Coast Line to Buy 2500-2900 Freight Cars

The Atlantic Coast Line is inquiring for from 2,500 to 2,900 freight cars, as follows:  
1,600—2,000 50-ton box cars  
300—700 50-ton automobile cars  
300 50-ton furniture cars  
200 50-ton high-side gondola cars  
100 70-ton covered hopper cars

### L. & N. Purchases 2,100 Freight Cars

The Louisville & Nashville has placed orders for a total of 2,100 freight cars as follows:

500 50-ton hopper cars, American Car & Foundry Co.  
500 50-ton 40-ft. 6-in. box cars, American Car & Foundry Co.  
500 50-ton hopper cars, Pullman-Standard Car Manufacturing Co.  
500 50-ton 40-ft. 6-in. box cars, Pullman-Standard Car Manufacturing Co.  
100 50-ton 50-ft. 6-in. box cars, Pullman-Standard Car Manufacturing Co.

Inquiry for these cars was reported in the *Railway Age* of April 12.

THE WESTERN PACIFIC is inquiring for 350 40-ft. 6-in. box cars of 50 tons' capacity and 300 50-ft. flat cars of 50 tons' capacity.

THE ERIE will build 70 cabooses at company's Dunmore, Pa. shop. Inquiry for these cabooses was originally reported in the *Railway Age* of November 2, 1940.

THE AMERICAN REFRIGERATOR TRANSIT COMPANY has ordered material for 150 new refrigerator cars which will be constructed in the company's St. Louis shops during the latter months of this year.

THE CANADIAN PACIFIC has awarded an order for 250 33-ft. steel twin hopper cars of 50 tons' capacity to the Magor Car Corporation. Inquiry for this equipment was reported in the *Railway Age* of March 15.

THE ANN ARBOR has ordered material for the construction of 25 55-ton hopper cars in its shops at Decatur, Ill. Work will be started as soon as material is received. Inquiry for this equipment was reported in the *Railway Age* of January 25.

THE DELAWARE & HUDSON is inquiring for 300 hopper cars of 50 tons' capacity, 200 41-ft. 9-in. gondola cars of 50 tons' capacity and 50 all steel covered hopper cars of 70 tons' capacity. The contemplated acquisition of from 500 to 900 hopper and gondola cars by this company was reported in the *Railway Age* of March 15.

## IRON AND STEEL

THE WABASH has been authorized by the district court to purchase 5,000 tons of 112-lb. rails.

The UNION PACIFIC will relay 653 miles of main line rails in 1941 at a cost of \$10,710,000. Of this amount, 211 miles will be laid on the Nebraska division; 172 miles on the Wyoming division; 64 miles in Kansas; 17 miles in Colorado; 79 miles in

Oregon and 60 miles on the Los Angeles division.

## PASSENGER CARS

THE ILLINOIS CENTRAL has ordered two streamlined lightweight dining cars from the Pullman-Standard Car Manufacturing Company.

THE PORTUGUESE GOVERNMENT railways has ordered 19 third class passenger-train coaches for export to Mocambique, Portuguese East Africa, from the Pullman-Standard Car Export Corporation.

## SIGNALING

THE PANAMA RAILWAY has placed an order with the Union Switch & Signal Co. for the necessary interlocking materials for protecting traffic over the Gatun River bascule drawbridge at Monte Lirio, Canal Zone. Included in this order is an eight-lever mechanical interlocking machine equipped with electric locks, Style "S" semaphore signals, rail and bridge locks, etc., with the necessary relays, rectifiers, transformers, and housings as required to provide complete drawbridge protection.

## Construction

NEW YORK, NEW HAVEN & HARTFORD.—This company has authorized a considerable amount of automatic signal work on its line between Stamford and Greenwich, Conn., at an estimated cost of \$185,000.

PANHANDLE & SANTA FE.—A contract amounting to \$133,300 has been awarded Bell & Braden, Amarillo, Tex., by the Texas Highway Department for the construction of an underpass and adjacent approaches for Cuyler street under three tracks of the Panhandle & Santa Fe at Pampa, Tex. The bridge will consist of two continuous 31½-ft. wide-flange I-beam spans, supported on two box-type abutments and a center pier. It will provide a 29-ft. horizontal clearance and a 14 ft. vertical clearance for each of two 24-ft. roadways for Cuyler street.

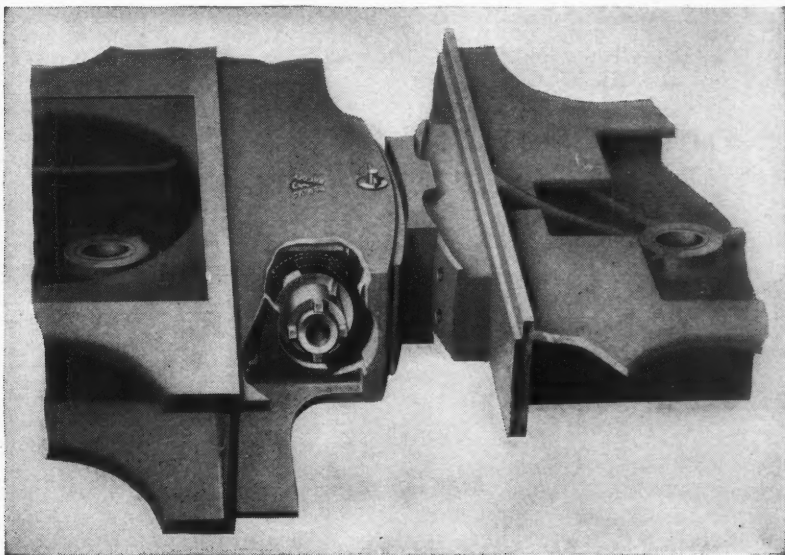
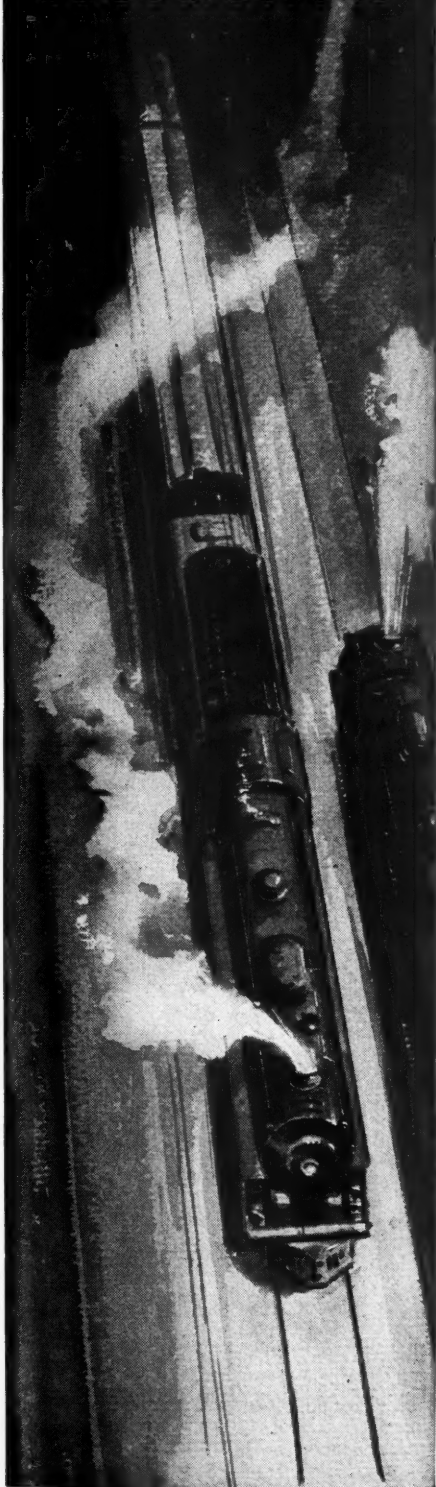
The work will involve a grade revision 3,300 ft. long, with a raise of grade for the tracks at the center of Cuyler street of 4.73 ft. This grade revision will necessitate adjustments for the express and baggage building, driveways, platforms, etc., and also makes necessary the construction of retaining walls and stairs from the raised grade of tracks to the lower level at the depot. A temporary or shoo-fly track will be provided south of the existing main lines during the construction of the underpass structure.

WESTERN PACIFIC.—The Empire Construction Company, San Francisco, Cal., with a bid of approximately \$45,000, was the low bidder on a 60-ft. by 140-ft. frame building with offices on the second floor to be constructed adjacent to the San Francisco freight sheds. The new building will be leased to the Merchants Shippers Association, releasing space occupied by them in the inbound freight shed for freight house use.

Continued on next left-hand page



ESSENTIAL TO  
HIGH SPEED  
OPERATION  
OF MODERN  
LOCOMOTIVES



Modern power, with long overhang over the trailing truck, must have freedom of buffer movement in every direction, and full faced contact of the buffer surfaces at all times.

It is absolutely necessary on curved track, and safer at high speeds.

Franklin E-2 Radial Buffer provides this universal movement and full contact of the buffer surfaces. It also provides high frictional resistance to compression that effectively dampens oscillation between engine and tender and eliminates lost motion and subsequent destructive shocks to draw-bars and pins.

Franklin E-2 Radial Buffer effectively reduces locomotive maintenance costs and adds immeasurably to the safety of high speed operation of modern locomotives.

Franklin Compensator and Snubber, twin of the Radial Buffer, is equally essential for that other important job of protecting the foundation of the locomotive.

No locomotive device is better than the replacement part used for maintenance.  
Genuine Franklin repair parts assure accuracy of fit and reliability of performance.

**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

**NEW YORK**

**CHICAGO**

**MONTREAL**



## Supply Trade

**A. Van Hassel**, president of the Magor Car Corporation, has been elected a director of the Ralston Steel Car Company.

**The Ajax Hand Brake Company**, Chicago, has appointed the **Portable Plating and Equipment Company**, Chicago, its exclusive sales agent for the Ajax hand brake within the United States, effective April 1.

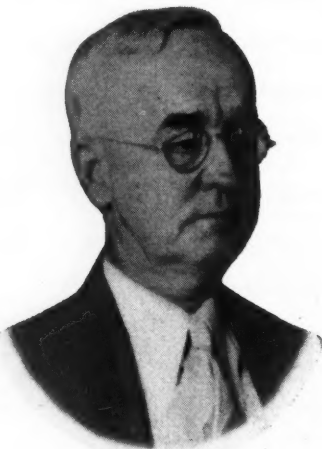
The Chicago offices of **The Koppers Coal Company** and the Barlett Hayward and Wood Preserving divisions of the **Koppers Company** will be consolidated, about May 1, at 224 South Michigan avenue.

**The Bucyrus-Erie Company**, South Milwaukee, Wis., has appointed **Dow & Company**, Buffalo, N. Y., distributor for Northwestern New York, and the **J. D. Adams Company**, Billings, Mont., distributor for Montana east of the Rockies and eight counties in Northern Wyoming.

**Leland B. Duer**, partner in the law firm of Duer & Taylor, New York, has been elected a director of **The Okonite Company** to replace George Murray Brooks, former executive vice-president of the company, who died in January. Mr. Duer has for several years participated in the work of the company's legal department. **Charles E. Brown, Jr.**, formerly assistant to the president, was elected vice-president of **The Okonite Company** and the **Okonite-Callender Cable Co.** He will remain in charge of the Washington, D. C. office.

## OBITUARY

**Charles R. Heron**, northeastern sales manager for the Primary Battery division of Thomas A. Edison, Inc., Bloomfield, N.



Charles R. Heron

J., died suddenly on April 10, while attending a dinner in Newark, N. J. He was 58 years old. Mr. Heron was born in Manchester, N. H., and graduated from the Bryant & Stratton Business College there. From 1901 to 1916, he was successively employed by the Abbott-Downing Company and in the United States district

court at Concord, N. H.; Rueter & Company in Boston, Mass.; and the American Locomotive Company and the Dressel Lamp Works in New York City. In 1916, he became a service engineer for the Primary Battery division of Thomas A. Edison, Inc., and had been northeastern sales manager since 1939. He was a member of the A. A. R. Signal Section, the New York Railroad Club, Central Railway Club of Buffalo, and several Masonic organizations.

## Financial

**ATLANTIC COAST LINE.—Abandonment.**—This company has asked the Interstate Commerce Commission for authority to abandon a line extending from Fincher, Fla., to Fanlew, 31.8 miles.

**BELT RAILWAY OF CHICAGO.—Annual Report.**—The 1940 annual report for this company shows net income, after interest and other charges, of \$250,780, compared with a net income of \$76,612 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	\$5,509,807	+\$213,212
Maintenance of way and structures	375,229	-236,890
Maintenance of equipment	395,856	+19,874
Transportation—rail	2,355,631	+114,644
TOTAL OPERATING EXPENSES	3,282,175	-115,347
Operating ratio	59.57	-4.58
NET REVENUE FROM OPERATIONS	2,227,632	+328,559
Railway tax accruals	708,697	+17,718
Railway operating income	1,518,934	+310,841
Net rents—Cr.	315,168	-134,635
NET RAILWAY OPERATING INCOME	1,834,102	+176,207
Total other income	58,517	-184
TOTAL INCOME	1,892,619	+176,023
Rent for leased roads and equipment	1,641,953	+2,687
TOTAL FIXED CHARGES	1,640,921	+1,859
NET INCOME	\$250,780	+\$174,168
Disposition of net income: Income balance transferred to profit and loss	\$250,780	+\$174,168

**BELLEVILLE CENTRAL.**—*Note.*—This company has asked the Interstate Commerce Commission for authority to issue to the Pennsylvania a non-interest bearing note for \$125,000 in payment of adjusted and overdue freight and interchange balances to January 1, 1941.

**CENTRAL OF NEW JERSEY.—Abandonment by the Odgen Mine.**—The Odgen Mine has been authorized by Division 4 of the Interstate Commerce Commission to abandon its entire line extending from a connection with the Central of New Jersey at Lake Hopatcong, N. J., to Edison, 10 miles. At the same time Division 4 found that the Central of New Jersey had no interest in the proceeding and dismissed its

application for authority to also abandon the line. The opinion points out that the commission had previously authorized the Central to abandon the operation of the line.

**CENTRAL OF GEORGIA.—Annual Report.**—The 1940 annual report for this company shows a net deficit, after interest and other charges, of \$1,895,674, compared with a net deficit of \$2,628,670 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
Average mileage operated	1,865.20	-5.88
RAILWAY OPERATING REVENUES	\$16,566,197	+\$1,202,439
Maintenance of way and structures	2,194,838	+177,951
Maintenance of equipment	3,332,525	+141,780
Transportation	7,050,337	+368,930
TOTAL OPERATING EXPENSES	14,157,392	+763,947
NET REVENUE FROM OPERATIONS	2,408,805	+438,492
Railway tax accruals	1,441,266	+89,449
Railway operating income	967,539	+349,043
Equipment rents—Net	63,756	-148,656
Joint facility rents—Net	132,650	-16,061
NET RAILWAY OPERATING INCOME	771,133	+216,447
Non-operating income	898,120	+325,470
GROSS INCOME	1,669,254	+541,918
Rent for leased roads and equipment	186,787	-212,734
Interest on funded debt	2,935,880	+151,852
TOTAL DEDUCTIONS FROM GROSS INCOME	3,564,927	-191,079
NET DEFICIT	\$1,895,674	-\$732,997

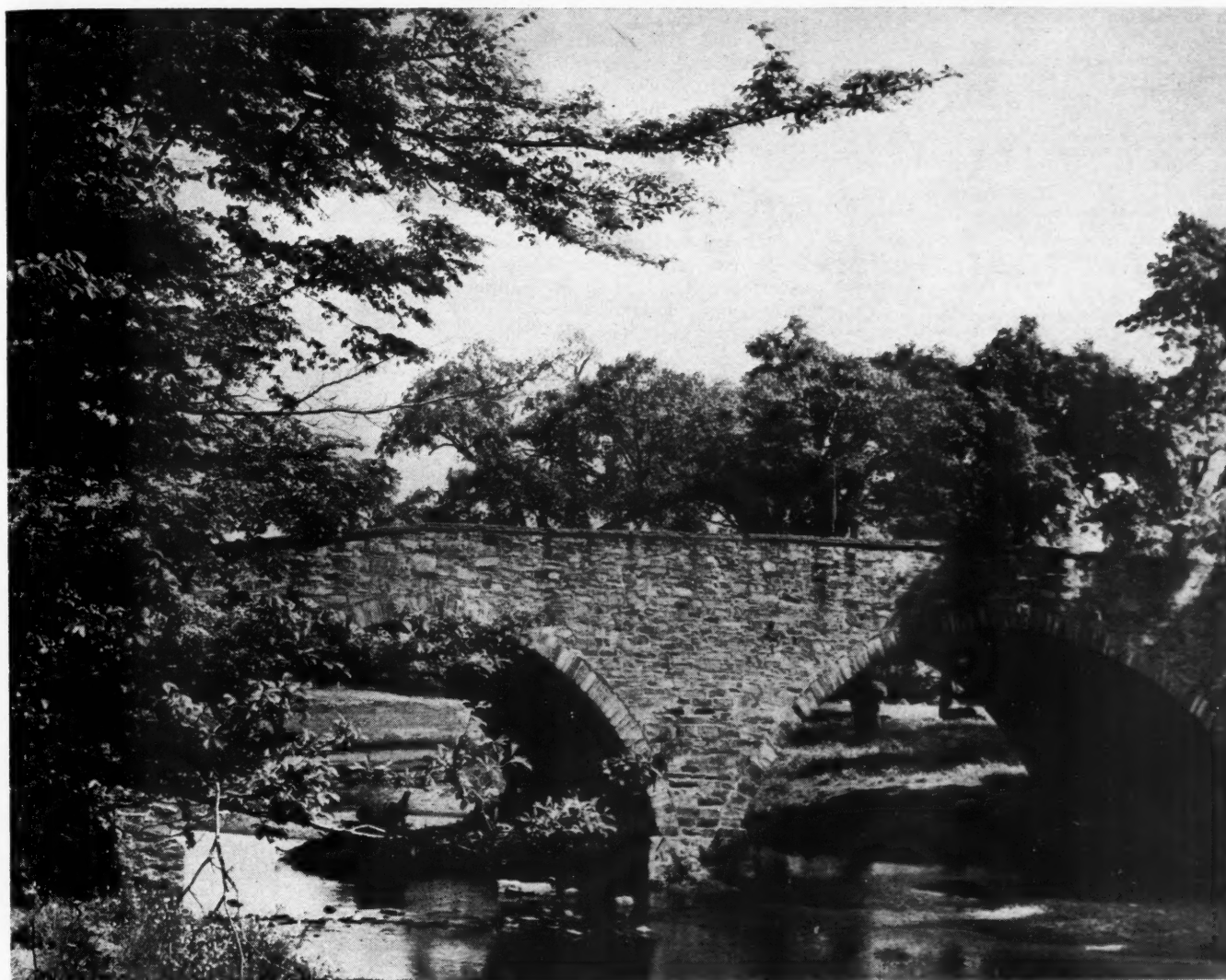
**CHESAPEAKE & OHIO.—Alleghany Corporation bond indentures.**—The Alleghany Corporation, Wilmington, Del., top holding company in the former Van Sweringen railroad group, is asking holders of bonds aggregating \$72,175,000 principal amount outstanding to consent to a plan of readjustment of indentures. The issues affected are: (1) 15-year collateral trust convertible 5's, due February 1, 1944; (2) 20-year collateral trust convertible 5's, due June 1, 1949; and (3) 20-year collateral trust convertible 5's, series of 1930, due April 1, 1950. Bondholders are being asked to send consents to their respective trustees who will act as depositaries.

The plan of readjustment has developed out of litigation pending between Alleghany and trustees of the three bond issues in the United States district court for the Southern district of New York since May, 1939, arising principally out of provisions in present indentures fixing a collateral ratio of 150 per cent. The federal judge of jurisdiction approved the plan originally on August 6, 1940, and in amended form on November 28, 1940. The plan is also said to have the support and recommendation of all three trustees.

As a special inducement to holders of the 1944 bonds, a conversion option is provided enabling them to convert bonds into pledged shares of Chesapeake & Ohio stock at the rate of 22 shares of C. & O. per \$1,000 bond converted prior to February 1, 1943, and 21 shares of C. & O. per \$1,000 bond converted thereafter prior

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### STONY BROOK BRIDGE

PRINCETON, N. J.

The tide in the fortunes of war for the American Army was turned at this old and picturesque bridge over Stony Brook at Princeton on a cold winter morning — January 3, 1777. It was here that the Continentals, who had marched around the British, met and conquered the remainder of the British army and, through their glorious victory, once again gave the American people hope and spurred them on to the eventual victory at Yorktown. The bridge is perfectly preserved and will doubtless endure for another century.

It was built in 1792 to replace the original destroyed during the battle.

\* \* \* \* \*

32 years ago the American Arch Company demonstrated to the railroads the practicality of standardizing Arch tubes and Arch Brick sizes and designs. Today, although it has been constantly developed to keep pace with modern railroading, the Security Sectional Arch is still standard on American railroads.

*There's More to SECURITY ARCHES Than Just Brick*

**HARBISON-WALKER  
REFRACTORIES CO.**

***Refractory Specialists***



**AMERICAN ARCH CO.  
INCORPORATED**

60 EAST 42nd STREET, NEW YORK, N. Y.

***Locomotive Combustion  
Specialists***

to maturity date. The corporation's statement goes on to say:

"Under the present indentures, disposition of excess income from the trust collateral is governed by the 150 percent ratio. On present C. & O. yield the aggregate holdings of C. & O. under all three trusts yield income substantially in excess of full interest requirements on all three issues. Due to the inequality of collateralization as between the 1950 indenture and the other two, however, the 1944 and 1949 trusts yield a substantial surplus of income over the amount requisite to service their bonds, while the 1950 collateral yields far less than enough to pay interest on the 1950 bonds.

"The surplus income from the 1944 and 1949 trusts is not available to Alleghany wherewith to enable it to service the 1950 bonds while the collateral ratio under those issues is below 150 percent. Alleghany can withdraw such income only when the pertinent collateral ratio equals or exceeds 150 percent. Also while the 150 percent collateral ratio is exceeded, all income from the 1944 and 1949 trusts is receivable by Alleghany regardless of the interest requirements of the 1944 and 1949 bonds themselves. Accordingly, while holders of 1950 bonds may worry about payment of their interest while stock market values are down, the 1944 and 1949 bondholders may worry about payment of interest on their bonds if the stock market establishes a level higher than the 150 percent ratio. This situation is aggravated by the claims of all three trustees in the pending litigation that when Alleghany withdraws excess income it must deposit all moneys so withdrawn as collateral under the respective indentures, because of the so-called 150 percent ratio maintenance covenants.

"Under the plan, the 150 percent ratio will be eliminated as the factor governing disposition of income, and the disposition of funds will be placed on a regular basis. The 1944 and 1949 Trustees will collect income from their respective trusts and on each interest payment date will pay the currently maturing coupon, set aside a full reserve for the next coupon and turn the balance over to the 1950 income account. In exchange for this regular receipt of surplus income from the 1944 and 1949 trusts, enabling application thereof to payment of interest on the 1950 bonds (as well as taxes and corporate expenses), the 1950 bondholders are asked to place their bonds on a contingent-interest basis, thus assuring continuity of the program."

**CHICAGO GREAT WESTERN.—Annual Report.**—The 1940 annual report for this company shows net income, after interest and other charges, of \$39,944, compared with a net deficit of \$62,148 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
Average mileage operated	1,502.17	-2.64
RAILWAY OPERATING REVENUES	\$18,748,596	+\$620,492
Maintenance of way and structures	2,356,054	+97,224
Maintenance of equipment	2,764,718	+84,315
Transportation	6,826,980	+178,613
TOTAL OPERATING EXPENSES	13,283,229	+377,562
NET REVENUE FROM OPERATIONS	5,465,367	+242,930
Railway tax accruals	1,360,737	+199,337
Railway operating income	4,104,629	+43,593
Net rents—Dr.	2,320,399	+39,133
NET RAILWAY OPERATING INCOME	1,784,230	+4,459
Total other income	122,160	+3,691
TOTAL INCOME	1,906,390	+8,151
Rent for leased roads and equipment	192,235	-6,488
Interest on funded debt	1,595,684	+19,840
TOTAL FIXED CHARGES	1,849,110	-10,433
NET INCOME	\$39,944	+\$102,092

**CHESAPEAKE & OHIO.—Equipment Trust Certificates.**—This company has asked the Interstate Commerce Commission for authority to assume liability for \$5,100,000 of serial equipment trust certificates to be

sold at competitive bidding with an interest rate not to exceed 2½ per cent. The proceeds will be used as part payment of the purchase price of new equipment costing a total of \$6,440,993 and consisting of 1,000 50-ton, 40-ft., 6 in., all-steel box cars; 1,000 50-ton, all-steel hopper cars; 50 50-ton, 50-ft., all-steel flat cars; 25 70-ton, 56-ft., all-steel flat cars; 10 125-ton, 56-ft., all-steel flat cars; six 125-ton 51-ft., 6¾ in., all-steel flat cars; four 125-ton 61-ft., 4¾ in., all-steel flat cars and 20 all-steel passenger coaches. The certificates will be dated May 1, 1941, and will mature in 10 equal annual installments on May 1 in each of the years from 1942 to 1951 inclusive.

**CHICAGO, INDIANAPOLIS & LOUISVILLE.—Ratification of Trustee.**—L. F. DeRamus has asked the Interstate Commerce Commission to ratify his appointment as trustee of this company in reorganization proceedings under section 77 of the Bankruptcy Act.

**CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA.—Equipment Trust Certificates.**—This road has rejected bids on a proposed issue of \$1,680,000 of equipment trust certificates, maturing serially in from one to 15 years, as being too high and is considering other means of financing equipment purchases. The two bids for the issue were 100.132 for 27½s and 100.0789 for 3s.

**CINCINNATI, NEW ORLEANS & TEXAS PACIFIC.—Annual Report.**—The 1940 annual report of this company shows net income, after interest and other charges, of \$3,238,434, a decrease of \$164,348 as compared with net income in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	\$18,320,382	+\$531,893
Maintenance of way	1,988,165	-84,195
Maintenance of equipment	3,589,726	+138,917
Transportation	4,661,734	+247,606
TOTAL OPERATING EXPENSES	11,252,494	+328,143
Operating ratio	61.42	+0.01
NET REVENUE FROM OPERATIONS	7,067,888	+203,750
Taxes	2,227,000	+413,729
Railway operating income	4,840,888	-209,979
Hire of equipment	293,470	-7,842
Joint facility rents	136,257	-30,873
NET RAILWAY OPERATING INCOME	4,998,100	-186,959
Non-operating income	94,196	+4,848
TOTAL GROSS INCOME	5,092,296	-182,110
Rent for leased roads and equipment	1,701,795	-3,739
TOTAL DEDUCTIONS FROM GROSS INCOME	1,853,862	-17,763
NET INCOME	\$3,238,434	\$164,348
Disposition of net income:		
Dividends on 5% preferred stock	122,670	.....
Dividends on common stock*	1,345,500	-1,345,500
Balance transferred to profit and loss	\$1,770,264	+\$1,181,152

\* \$8 per share in 1940 (\$3 per share charged to Income; \$5 per share charged to Profit and Loss) \$6 per share in 1939 charged to Income.

**COLORADO & SOUTHERN.—Bonds of the**

**Wichita Falls & Oklahoma.**—The Wichita Falls & Oklahoma has asked the Interstate Commerce Commission for authority to extend the obligation and lien of its first mortgage six per cent bonds from July 1, 1936 to July 1, 1951.

**DULUTH & NORTHEASTERN.—Abandonment.**—This company has asked the Interstate Commerce Commission for authority to abandon a line extending from Saginaw, Minn., to Hornby, 46.7 miles.

**FLORIDA EAST COAST.—Trustees Take Over.**—Scott M. Loftin and Edward W. Lane took over operation of this road at 12:01 a. m. on April 21. Mr. Loftin has been a co-receiver of the road since it was placed in equity receivership in 1931. Announcement of transfer of the road from equity proceedings to Section 77 was made in the *Railway Age* of February 1, page 266.

**FLORIDA EAST COAST.—Annual Report.**—The annual report for this company shows net deficit, after interest and other charges, of \$1,913,930, compared with a net deficit of \$2,091,032 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
Average mileage operated	685	.....
RAILWAY OPERATING REVENUES	\$10,748,838	+\$1,487,471
Maintenance of way and structures	1,517,975	+209,554
Maintenance of equipment	1,957,890	+158,379
Transportation	3,749,215	+668,206
TOTAL OPERATING EXPENSES	8,341,683	+1,208,138
NET REVENUE FROM OPERATIONS	2,407,155	+279,333
Railway tax accruals	810,658	+29,175
Fairway operating income	1,596,498	+250,158
Hire of equipment	591,059	-1,580
Net Dr.	20,221	+10,218
Joint facility rents —Net Dr.		
NET RAILWAY OPERATING INCOME	985,219	+241,520
Other income	80,568	-10,400
GROSS INCOME	1,065,787	+231,120
Interest on funded debt	2,837,502	+6,251
NET DEFICIT	\$1,913,930	-\$177,102

**GULF, MOBILE & OHIO.—Interlocking Directorate Denied.**—By a vote of six to five the Interstate Commerce Commission has denied the application of William H. Coverdale for authority to hold the position of director of this company and its subsidiaries while holding the position of director in several other railroad companies. The majority found that Mr. Coverdale had failed to show that "neither public nor private interests will be adversely affected" by his holding a directorship of this company while at the same time holding directorships on other carriers.

In observing that Mr. Coverdale did not live in the territory served by the Gulf, Mobile & Ohio, the majority went on to say that "We have observed with satisfaction that some of the important railways in the central and far west are replacing former officers and directors who lived and

Continued on next left-hand page



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were occupied with business interests in places remote from those in which the railways operate, with men whose interests are mainly centered in the same territories as those served by the railways concerned. The public interest, in our opinion, is likely to be subserved by that policy." Other companies in which Mr. Coverdale holds directorships include the Georgia & Florida; the Richmond-Washington; the Richmond, Fredericksburg & Potomac; the Tennessee, Alabama & Georgia; Seaboard Air Line; Chicago & Eastern Illinois; Meridian & Memphis; Jackson & Eastern; and the Birmingham & Northwestern.

"The majority," observes Commissioner Mahaffie in his dissenting opinion, "states that Coverdale and his co-trustee Burgess are in a position to manage the affairs of the Tennessee, Alabama & Georgia in the interest of the Seaboard Air Line." Mr. Mahaffie was unable to see what this fact had to do with the instant proceeding.

Commissioner Mahaffie also had some comments to make regarding the majority's views on the residences of directors. "It is suggested," he writes, "that the public interest is likely to be subserved by having residents of the territory served by a railroad as its directors. This no doubt is correct if it be assumed that men equally competent and equally interested in the success of the enterprise are available. Otherwise it is likely not to be correct. It may also, be true of the owners of railroads. However, ownership and the geographical location of the property frequently do not coincide. When this happens to be the case it is my view that a qualified man with a substantial financial interest in a property may properly be chosen by the stockholders to represent them in its management, even if both stockholders and the director reside at a distance from the property they own and help direct. In that situation it cannot properly be said that the public interest is adversely affected. As I see it, the stockholders' votes should have greater weight than the question of geography."

Chairman Eastman agreed with Mr. Mahaffie, but wanted it made clear that he does not "believe that a person can, without danger of adverse results, serve as a director of two or more railroads which are to any important extent in competition with each other or have other conflicting interests." Commissioners Aitchison, Miller and Alldredge joined in Commissioner Mahaffie's dissent.

**GEORGIA SOUTHERN & FLORIDA.—Annual Report.**—The 1940 annual report for this company shows net income of \$137,895, after interest and other charges, compared with a net deficit of \$169,628 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	\$2,982,334	+\$672,743
Maintenance of way and structures	408,979	+30,173
Maintenance of equipment	456,899	+22,565
Transportation	1,130,452	+145,860
TOTAL OPERATING EXPENSES	2,117,782	+218,139

NET REVENUE FROM OPERATIONS	864,553	+454,603
Railway tax accruals	186,830	+8,919
Hire of equipment	161,763	+62,318
Joint facility rents	21,578	+7,762
NET RAILWAY OPERATING INCOME	494,382	+375,604
Non-operating income	8,711	+458
GROSS INCOME	503,092	+376,062
Interest on funded debt	285,398	-5,673
TOTAL DEDUCTIONS FROM GROSS INCOME	365,197	+68,539
NET INCOME	\$137,895	+\$307,523

**LEHIGH VALLEY.—Interest Payment.**—Under the provisions of its financial adjustment plan of August 25, 1938, this road will pay full interest on its general consolidated mortgage bonds, due May 1. Payment aggregates \$1,558,462 for the six months' period.

**LOUISIANA & ARKANSAS.—Operation.**—This company has been authorized by Division 4 of the Interstate Commerce Commission to operate, under trackage rights, over certain tracks and facilities of the St. Louis Southwestern and the Shreveport Bridge & Terminal between Shreveport, La., and Bossier City, 2.2 miles.

**MISSOURI & ARKANSAS.—Notes.**—This company has been authorized by Division 4 of the Interstate Commerce Commission to issue at par \$50,000 of five-year serial promissory notes, the proceeds to be applied to the payment of vouchers audited prior to February 1, 1941, and unpaid.

**MISSOURI SOUTHERN.—Abandonment.**—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon, as to interstate and foreign commerce, its entire line extending from Leeper, Mo., to Bunker, 54 miles.

**MUSKOGEE ELECTRIC TRACTION.—Abandonment.**—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon as to interstate and foreign commerce the following lines:

1. From Muskogee, Okla., to Fort Gibson, 8.1 miles;
2. From Yahola Junction, Okla., to Yahola Pit, 1.3 miles; and
3. From Muskogee, Okla., to Hyde Park, 4.3 miles.

**NEW YORK CENTRAL.—Operation of the Dillonvale & Smithfield.**—This company has been authorized by Division 4 of the Interstate Commerce Commission to operate the properties of the Dillonvale & Smithfield, extending from Dillonvale, Ohio, to Smithfield, 5.4 miles.

**NORFOLK SOUTHERN.—Amendment of Lease.**—This company has asked the Interstate Commerce Commission for authority to amend, modify, and change the terms and conditions, especially as to rental and termination, of an indenture of lease dated May 27, 1920, between the Norfolk Southern and the Durham & South Carolina, leasing the latter for a term of 99 years. The leased line extends from Duncan, N. C., to Durham.

**NORTHERN PACIFIC.—Annual Report.**—The 1940 annual report for this company shows net income, after interest and other

charges, of \$2,064,091, compared with a net income of \$73,654 in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
Average mileage of road	6,719.52	-1.30
RAILWAY OPERATING REVENUES	\$68,714,635	+\$4,832,202
Maintenance of way and structures	9,193,246	+622,878
Maintenance of equipment	13,403,007	+680,654
Transportation	23,774,187	+728,774
TOTAL OPERATING EXPENSES	51,615,264	+1,935,537
NET REVENUE FROM OPERATIONS	17,099,371	+2,896,665
Railway tax accruals	7,035,623	+270,663
Railway operating income	10,063,748	+2,626,002
Equipment rents	1,038,630	+373,763
Joint facility rents	2,480,698	+104,074
NET RAILWAY OPERATING INCOME	13,583,076	+3,103,839
Non-operating income	3,811,449	-537,163
GROSS INCOME	17,394,524	+2,566,676
Rent for leased roads and equipment	51,372	-26,570
Interest on funded debt	14,422,835	+13,605
TOTAL FIXED CHARGES	15,100,302	+604,891
NET INCOME	\$2,064,091	+\$1,990,438

**PACIFIC COAST.—Abandonment.**—This company has asked the Interstate Commerce Commission for authority to abandon its line extending from San Luis Obispo, Calif., to Los Alamos, 51.9 miles, together with a branch line from Suey Junction, Calif., to Sisquoc, 12 miles.

**PENNSYLVANIA - PITTSBURGH & LAKE ERIE.—Acquisition of the Beaver Valley.**—The Pennsylvania and the Cleveland & Pittsburgh and the Pittsburgh & Lake Erie have asked the Interstate Commerce Commission for authority to purchase the Beaver Valley extending from a connection with the Cleveland & Pittsburgh at Vanport Junction, Pa., to West Bridge-water Junction, 3.1 miles. The two companies will pay \$26,000 for the property, which will be operated jointly and which will provide rail facilities for a national defense plant for the manufacture of blades for aeroplane propellers.

**SOUTHERN.—Debt Modification.**—This road has arranged to repay an \$11,000,000 debt to the Reconstruction Finance Corporation by May 15 through cash funds aggregating \$1,000,000 and \$10,000,000 of bank loans at a lower rate than the R. F. C. now offers.

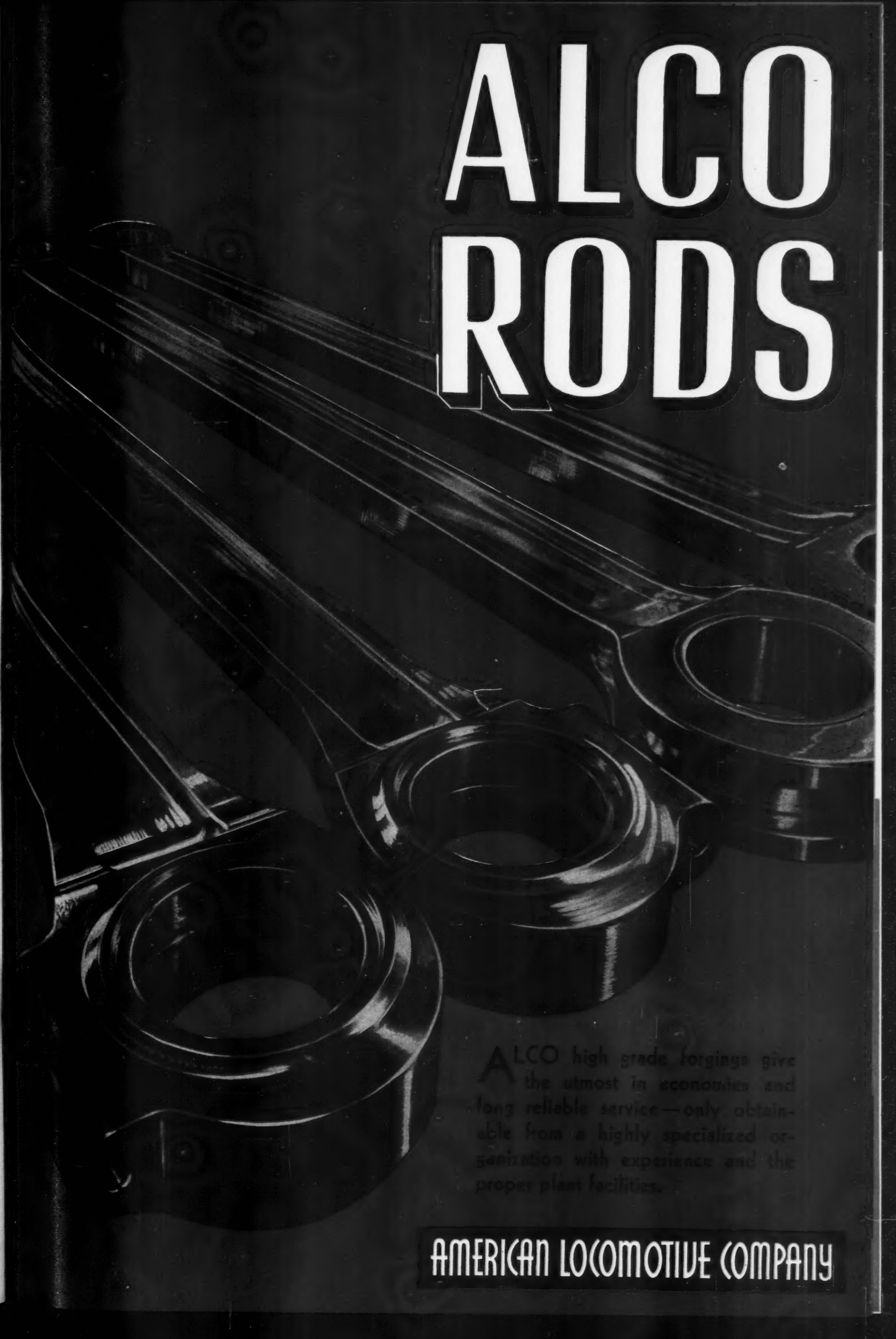
**WESTERN MARYLAND.—Lease.**—This company has asked the Interstate Commerce Commission for authority to acquire by lease the railroad and other property of its wholly-owned subsidiary, the Greenbrier, Cheat & Elk. The new lease would run for a period of 25 years.

#### Average Prices of Stocks and Bonds

	Apr. 22	Last week	Last year
Average price of 20 representative railway stocks..	28.79	29.05	31.69
Average price of 20 representative railway bonds..	59.29	64.17	59.65

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## Railway Officers

### EXECUTIVE

**J. T. Gillick**, chief operating officer of the Chicago, Milwaukee, St. Paul & Pacific and vice-president of the Des Moines Union Railway, has been elected president of the latter, succeeding **Norman B. Pitcairn**, receiver of the Wabash, who, in turn, has been elected vice-president of the Des Moines Union Railway, succeeding Mr. Gillick.

**Louis F. DeRamus**, chief executive officer of the Chicago, Indianapolis & Louisville, with headquarters at Chicago, has been appointed also co-trustee, a post he will share with **Holman D. Pettibone**, trustee. The appointment, which was made by Federal Judge Michael L. Igoe, is subject to confirmation by the Interstate Commerce Commission.

**W. E. Smith**, vice-president and general manager of the Louisville & Nashville, and vice-president of the Cincinnati Union Terminal Company, has been elected president of the terminal company, succeeding **H. E. Newcomet**, vice-president of the Western region of the Pennsylvania. **A. T. Lowmaster**, vice-president and general manager of the Chesapeake & Ohio, has been elected vice-president of the Cincinnati Union Terminal Company, succeeding Mr. Smith. **F. B. Mitchell**, general manager of the Western lines of the Baltimore & Ohio, has been appointed also chief operating officer of the Cincinnati Union Terminal Company, succeeding **C. S. Millard**, vice-president and general manager of the Cleveland, Cincinnati, Chicago & St. Louis (Big Four).

**S. J. Lockhart**, chief clerk to the president of the Canadian National, has been promoted to assistant to the vice-president and general manager of the Atlantic region, with headquarters at Moncton, N. B., succeeding **H. Morton**, who has retired after almost 50 years of service with the road. Mr. Lockhart was born at Moncton on March 10, 1892, and entered the service of the Canadian National on February 22, 1907, as junior clerk in the mechanical department at Moncton. He was promoted to clerk in April, 1910, and the following year transferred to the Insurance and Provident Fund department as stenographer. Two years later he became secretary to the mechanical superintendent and in March, 1923, transferred as secretary to the general superintendent. The next year he was appointed secretary to the general manager and in September, 1937, was appointed general clerk. On November 7, 1938, he went to Montreal, Que., as chief clerk to the president, which position he occupied until his present appointment. Mr. Lockhart is a veteran of the last war, joining up for active military service on May 29, 1916, and being demobilized on June 6, 1919, when he resumed employment with the Canadian National.

Mr. Morton was born at Moncton on March 31, 1876, and commenced his rail-

way career as a messenger in the audit department of the Canadian National at Moncton on December 15, 1891, being promoted to clerk in August, 1893. On May



S. J. Lockhart

1, 1912, he was appointed chief clerk to the chief engineer and in December of the same year became chief clerk to the general superintendent. On January 1, 1916, he was appointed chief clerk to the general manager and in September of the same year became car service agent. The following year Mr. Morton resumed the position of chief clerk to the general manager, also serving as chief clerk to the general superintendent, and on April 15, 1924, he was appointed office assistant to the general manager. On February 19, 1935, he was appointed office assistant and on September 17, 1937, assistant to the regional vice-president and general manager, the position he held until his retirement.

**Thomas D. Beven**, general manager of the Elgin, Joliet & Eastern, with headquarters at Joliet, Ill., has been elected vice-president, with headquarters at Chicago. He will continue to perform his duties as general manager until further notice. Mr. Beven was born at New Orleans, La., on December 23, 1898, and entered railway service on January 8, 1912, as a messenger and clerk on the Illinois Central. He resigned on February 5, 1914,



Thomas D. Beven

to go with the Atchison, Topeka & Santa Fe at Houston, Tex., but returned to the Illinois Central on September 15, 1916. On May 15, 1917, he joined the U. S. Ma-

rines and served with them until May 1, 1920, when he was mustered out as a first lieutenant. After the war, Mr. Beven re-entered the service of the Illinois Central as a clerk and switchman at McComb, Miss., and was promoted to night yardmaster at Jackson, Miss., in 1924. He was promoted to general yardmaster at Hattiesburg, Miss., in 1926, and to trainmaster on the Memphis division on July 15, 1929. On June 1, 1935, he was appointed trainmaster at Paducah, Ky., and in May, 1938, he was advanced to superintendent of the East St. Louis terminal. In December of that year, Mr. Beven left the Illinois Central to go with the E. J. & E. as general manager, with headquarters at Joliet.

**Lowell M. Greenlaw**, general counsel of the Pullman Company, has been elected vice-president and general counsel, with headquarters as before at Chicago. Mr. Greenlaw was born at Mattoon, Ill., on January 1, 1877, and was admitted to the bar in 1912. He entered the service of the Pullman Company in 1908 as secretary to G. S. Fernald, who later became general counsel of the Pullman Company. Mr. Greenlaw was subsequently made assistant to Mr. Fernald, and on January 1, 1918,



Lowell M. Greenlaw

was appointed assistant general attorney. In September of the same year he was advanced to general attorney of the Pullman Car Lines, which position he held until the termination of federal control of the railroads in 1920, following which he continued in the same capacity with the Pullman Company until June 15, 1934, when he was promoted to general counsel.

### FINANCIAL, LEGAL AND ACCOUNTING

**Howard L. Kern** has been appointed general counsel of the Central of New Jersey, with headquarters at New York, effective May 1.

**James B. Fleming** has been appointed assistant auditor and assistant general freight agent of the Cambria & Indiana, with headquarters at Philadelphia, Pa.

**R. J. Herring** of the budget bureau of the Denver & Rio Grande Western, has been promoted to treasurer, with headquarters at Denver, Colo., succeeding **Rawson F. Watkins**, who retired on April 1,



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**WILMERDING, PENNSYLVANIA**

and **W. S. Moore**, in the statistical bureau, has been promoted to assistant treasurer, relieving **R. E. Powers**, who also retired on April 1.

**Mr. Watkins** was born at Davenport, Iowa on October 13, 1870, and attended the University of Iowa. He entered railway service on February 26, 1894, in the auditor's office of the Union Pacific, Denver & Gulf (now the Colorado & Southern), and on September 11, 1903, left railroad service to become assistant treasurer and trust officer of the International Trust Company at Denver. In January, 1906, he became assistant treasurer of the D. & R. G. W. and in August, 1913, he was promoted to treasurer. In December, 1924, Mr. Watkins was appointed secretary and treasurer, which position he held until recently, when he relinquished his duties as secretary.

**S. E. Leech**, acting secretary and acting auditor of the Des Moines Union Railway, has been appointed secretary and auditor, with headquarters as before at Des Moines, Iowa.

**Guy A. Gladson**, a member of the law firm of Winston, Strawn & Shaw, Chicago, and counsel for the reorganization committee of the old Chicago Great Western Railroad Company, has been appointed assistant general counsel of the Chicago Great Western, a newly created position, with headquarters at Chicago.

### OPERATING

**W. A. Hahnen**, acting general manager of the Des Moines Union Railway, has been elected general manager, with headquarters as before at Des Moines, Iowa.

**W. R. Adair**, acting assistant superintendent of the Rio Grande division of the Southern Pacific, has been appointed assistant superintendent of that division, with headquarters as before at El Paso, Tex., succeeding **L. C. Gram**, who has retired.

**J. O. Fortier**, assistant superintendent on the Smiths Falls division of the Canadian Pacific, has been transferred to the Montreal Terminals, with headquarters at Montreal, Que., succeeding **F. J. Liston**, who in turn has been transferred to Smith Falls, Ont., replacing Mr. Fortier.

**J. E. Mulick** has been appointed assistant superintendent on the Union Pacific, with headquarters at Las Vegas, Nev., and **W. J. Morrison** has been appointed assistant superintendent, with headquarters at Salt Lake City, Utah. **D. D. Maxwell** has been appointed trainmaster at Los Angeles, Cal., **G. C. Fish** appointed trainmaster at Las Vegas and **G. H. Seal** trainmaster at Milford, Utah. **A. D. Homan**, a conductor, has been promoted to trainmaster at Rawlins, Wyo., and **E. M. Prouty** has been appointed trainmaster at Cheyenne, Wyo.

### TRAFFIC

**J. F. Rivers**, commercial agent on the Seaboard Air Line at Tampa, Fla., has been appointed district freight agent at Greenville, S. C., succeeding **A. P. Courvoisie**, who has been appointed division

freight agent at Tampa. Mr. Courvoisie succeeds **C. J. Mundee**, who has been transferred to Orlando, Fla. **A. M. Baker**, district freight agent at Orlando, Fla., has been appointed division freight agent at Birmingham, Ala. The position of district freight agent at Orlando formerly held by Mr. Baker, has been abolished.

**M. B. Hutchins**, assistant general freight agent-traffic on the Chicago & North Western, has been promoted to assistant to the chief traffic officer, with headquarters as before at Chicago, a newly created position.

**Frank D. Staley**, assistant dairy and poultry agent of the Chicago, Rock Island & Pacific, has been promoted to general dairy and poultry agent, with headquarters as before at Chicago, succeeding **C. E. Pierce**, who retired on April 16.

**C. A. Pfister**, in charge of the divisions bureau of the Chicago, Indianapolis & Louisville (Monon) at Chicago, has been promoted to chief of the tariff and division bureaus, and **J. L. Fortier**, chief of the tariff bureau, has been promoted to assistant general freight agent, a newly created position, with headquarters as before at Chicago.

**Charles M. Grubbs**, assistant general freight agent on the Northern Pacific at Seattle, Wash., has been promoted to general freight agent, a newly created position, with the same headquarters, and **Herbert N. Proebstel**, assistant general freight agent at Seattle, has been appointed lumber agent, also a newly created position, with the same headquarters.

**W. E. Semmer**, general agent on the Chicago Great Western at Minneapolis, Minn., has been promoted to assistant general freight agent, with headquarters at St. Paul, Minn., and Minneapolis, succeeding **B. J. DeGroodt**, who has been assigned to other duties. **O. F. Thompson**, general agent at Dallas, Tex., has been transferred to Minneapolis, relieving Mr. Semmer, and **R. J. Williams**, traffic agent at Dallas, has been promoted to general agent at that point, replacing Mr. Thompson.

### SPECIAL

**Dr. W. W. Leake**, surgeon for the Illinois Central at New Orleans, La., has been appointed chief surgeon, effective May 1, with headquarters at Chicago, succeeding **Dr. G. G. Dowdall**, who will retire on that date because of ill health.

### ENGINEERING AND SIGNALING

**Philip P. Ash**, chief signal draftsman of the Louisville & Nashville, has been promoted to assistant signal engineer, with headquarters as before at Louisville, Ky.

**H. N. Halper**, assistant valuation engineer on the Erie, with headquarters at Cleveland, Ohio, has been promoted to valuation engineer.

**L. T. Taylor**, roadmaster on the Gulf, Colorado & Santa Fe at Brownwood, Tex., has been promoted to division engineer,

with headquarters at Galveston, Tex., succeeding **W. W. Wilson**, whose promotion to acting chief engineer of the G. C. & S. F. was reported in the *Railway Age* of March 31.

### MECHANICAL

**R. C. Winingham** has been appointed general mechanical inspector of the South-Central and Northwestern districts of the Union Pacific, with headquarters at Los Angeles, Cal.

**J. M. Holt**, general car inspector of the Southern Pacific (Pacific lines), has been promoted to general master car repairer, a newly created position, with headquarters as before at San Francisco, Cal.

**O. A. Wallace**, general car foreman of the Atlantic Coast Line, with headquarters at Wilmington, N. C., has been appointed superintendent of the car department and **H. J. Stein** has been appointed engineer of tests, both appointments effective April 16.

### OBITUARY

**Hunter H. Laughton**, who retired in December, 1937, as assistant to the vice-president on the Southern, in charge of materials and supplies, with headquarters at Washington, D. C., died on April 23.

**Thomas J. Frier**, who retired on December 1, 1938, as purchasing agent of the Wabash, with headquarters at St. Louis, Mo., died in that city on April 18. Mr. Frier was born at Keokuk, Iowa, on February 12, 1866, and entered railway service in 1883 as a junior clerk in the office of the master mechanic of the St. Louis, Keokuk & Northwestern (now a part of the Chicago, Burlington & Quincy). After advancing through various positions, he was appointed general storekeeper for the Burlington system in 1907. In 1909, he resigned to go with the Wabash as purchasing agent, with headquarters at St. Louis, Mo., and continued in that position until his retirement. Mr. Frier was one of the pioneers in the development of the present storekeeping system now employed by the major railroads throughout the country.

**John Randolph Shannon**, assistant to the traffic manager of the Minneapolis & St. Louis, with headquarters at San Francisco, Cal., died in that city at the age of 63 on April 20, after an illness of two months. Mr. Shannon was born at Chester, Ill., and started his railroad career with the Atchison, Topeka & Santa Fe, after which he was connected with the Illinois Central for several years. He commenced service with the M. & St. L. at Chicago in 1908 and advanced through the positions of clerk and traveling agent at Chicago; commercial agent at Cincinnati, Ohio; and general agent at Chicago, to general freight and passenger agent at Minneapolis, Minn. In March, 1935, he was appointed assistant to the traffic manager, with headquarters at San Francisco, which position he held at the time of his death.